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ABSTRACT

The evaluation of an innovative teacher-aide program in the Eckville School (County of Lacombe, Alberta, Canada) was conducted for Project SEARCH (Selection of Educational Alternatives for Rural Change). The teacher aide is defined in the first section of the report. The second section provides a history and rationale for employment of teacher aides at Eckville School. In subsequent sections, tables and other data are presented relating to task analysis of the teacher-aide role and an analysis of teaching practices and reactions by students, teachers, teachers aides, and other educational and community leaders regarding the program. Conclusions and findings are presented in the last section. The document contains 12 tables, a bibliography, and 3 appendices which present other data in the form of additional tables. (Related documents are RC 004 861 and RC 004 862.) (AL)

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AN EVALUATION OF THE USE OF TEACHERS' AIDES IN ECKVILLE SCHOOL

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Conducted for Project SEARCH

by

Lloyd W. West
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RC 004 963

August, 1970

HUMAN RESOURCES RESEARCH COUNCIL
Edmonton, Alberta

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PREFACE

In some respects, a report by an independent evaluator is like medication prescribed by a physician. Although it is intended to be helpful, it may be difficult to ingest and occasionally may produce toxic side effects. It is generally acknowledged, however, that the potential benefits which accrue greatly outweigh the hazards involved.

The major purpose in evaluating an innovative project is to provide valid information for future decision-making. Efforts have therefore been directed towards providing a service to the innovative enterprise, rather than simply sitting in judgement on it. Accordingly, this report is intended to be "informative" rather than "judgmental".

It is not incumbent upon the independent evaluator of a Research and Development project to award gold stars and demerits. It is, however, his responsibility to assure that observations and outcomes are objectively reported and that inferences and conclusions based upon such data are indeed warranted.

An impartial report, by definition must be relatively free from motivational bias. The influence of motives on perception and representation (a phenomenon well known to psychologists) can never be totally eliminated, but fortunately may be minimized. The independent evaluator, unlike the intimately involved project worker, is committed to an attitude of detached objectivity and is therefore less constrained to see what he hopes to see. Trained to suspend judgement, he is also more able to discern and forego unconscious impulses to "jump" to conclusions and the urge to bolster desired outcomes through selective presentation of the data. Such readiness to "trade off" subjective

advantage for scientific neutrality is essential if reported findings are to have credibility among scholars.

Research and Development projects are fraught with constraints and limitations. In the place of carefully controlled conditions, so essential to pure research, R and D workers must settle for carefully observed conditions. The criterion of statistical significance occasionally must be sacrificed for the criterion of practical relevance. It is reasonable, therefore, to anticipate a paucity of findings which satisfy the cannons of scientific rigor.

In order to proceed courageously in the face of numerous frustrating restrictions (eg, limited "funds" and "findings"), it is essential for the R and D worker to sustain optimistic but nonetheless rational, expectations of success. Albert Ellis, who is famous for his rational-emotive theory of behavior, suggests that most of our "hangups" result from irrational "self-talk"; ie, from the nonsense we tell ourselves. Among the irrational assumptions which make us "up-tight" in R and D work, as well as in personal living, is the absurd notion that there is a right and perfect way of doing things and that it is terrible or catastrophic if things don't happen in this singularly proper way. Such idealistic balderdash is irrational not only because it is patently unrealistic, but also because it discourages us from trying and dissuades us from exploring alternative ways of doing things. The old axims "The poor workman blames his tools", "Nothing ventured, nothing gained", and "If at first you don't succeed, try again" have a sound psychological basis. I am reminded of Thomas Edison's efforts to develop the incandescent light. Although he encountered many failures, he construed each

as a contribution to scientific knowledge. With every failure, he had learned how not to make light bulbs. I suspect that such a positive attitude, free of discouraging irrational self-talk is a prerequisite to both effectiveness and satisfaction in research and development work.

Continuous trial-and-error is more characteristic of research and development than are once-and-for-all definitive experiments. When evaluative data are used to redesign an innovative project, the initial outcomes of the project may be regarded as rough approximations, only to be followed by closer approximations, until the full possibilities of the innovation are realized.

Keeping these considerations in mind, the introduction of teachers' aides to Eckville school is unlikely to be construed as a failure, if the following conditions are satisfied:

a. Their introduction constitutes a bona fide effort to explore ways of freeing teachers from non-professional tasks so that they may focus upon more relevant matters,

b. The purpose and outcomes of the project are openly and honestly communicated to all concerned,

c. Accrued learning is utilized to develop new models or prototypes for further field testing.

In concluding, it would be remiss not to emphasize that the data presented in this report must be interpreted with extreme caution. Every inference must be treated as an hypothesis for further testing rather than as a demonstrable fact. The evaluational design was, at best, quasi-experimental. Although observations were made both prior to the introduction of teachers' aides (T_1) and again four months after

their inauguration (T_2), any explication of observed differences is confounded by uncontrolled factors. Between T_1 and T_2 many events may have occurred which tend to produce or prevent change. Optimism and enthusiasm may vary with the seasons. Time distribution among teaching functions predictably varies with the academic schedule (only after periods of testing, for example, do teachers spend much time marking examinations).

Were it possible, it nevertheless would be impractical to isolate and control for all such contingencies. Aside from the prohibitive costs involved, the results may be quite misleading. The innovator who wishes to field test an innovational design is less concerned with what happens in controlled laboratory settings than in what happens in a specific, real situation. As every component of a system is related to and effects every other, what is effective in one system may not be workable in another. Successful innovation, therefore, is likely to be somewhat "systems specific".

Perhaps the unique contribution of R and D is its ideographic focus upon systems design, modification, and development rather than upon the nomothetic quest of "basic" research for broadly generalizable findings.

It is hoped that the foregoing comments will provide project workers with an orientation for open (non-defensive) confrontation with the data which follow.

L.W.W.

ORGANIZATION AND ACKNOWLEDGEMENTS

This report is comprised of six closely related but self-contained sections.

Section I consists of an article by T. F. Rieger entitled, "Teacher Aides, What Shall We Call Them?" This article was originally published in the A.T.A. News, April 10, 1970, and is reprinted in full with permission of the author. The article is included in this report not only because it raises many questions relevant to the topic, but also because it presents the interim policy position of the ATA Executive Council. Consistent with such policy, the term "teachers' aide" is used throughout this report in reference to all non-certificated personnel who directly assist teachers.

In Section II, Al Cleveland, project administrator, describes the history and provides a rationale for the employment of teachers' aides at Eckville School.

Section III is devoted to an analysis of teachers' aide activity during their first four months employment in Eckville School. Data for this section were taken from the carefully maintained "logs" of teachers' aides, Nelly Grant and Wendy Lindsay. Ada Brouwer and Wayne Barrowcliffe assisted in the classification and organization of the data.

The allocation of professional time to various activities in the Eckville School, and the effects of teachers' aides upon this distribution of time is the concern of Section IV. Data were collected through direct observation by thirteen Education students from the University of Calgary. Wayne Barrowcliffe assisted with data processing.

Section V presents the subjective reactions of several reference groups (teachers, students, etc.) to the employment of teachers' aides at Eckville School. Data for this section were collected through extensive interviews by Dave Clarke. Stuart McRae assisted with the classification and organization of data for presentation.

Finally, Section VI provides a bibliography of many valuable references dealing with "teachers' aides". For the reader's convenience in locating these references, Ada Brouwer has identified the principal libraries of Alberta in which they may be found.

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Section I

TEACHER AIDES

WHAT SHALL WE CALL THEM?

T. F. Rieger
Executive Assistant, A.T.A.

Teacher aides, paraprofessionals, nonprofessional assistants, auxiliary personnel, what shall we call them? What may non-certificated persons do? May they enter classrooms? May they assist in instruction? May they mark exams and workbooks? May they reprimand pupils? May they supervise pupil behavior in lunchrooms, study halls, etc?

What preparation do teachers' aides need? Should they prepare in colleges? technical institutes? Should they learn in schools on the job? Who should prepare the courses? Who should be responsible?

Are teachers prepared to make full use of nonprofessional assistants? Are teachers prepared to direct the work of teachers' aides? What orientation do teachers need in the use of teacher aides?

How should aides be assigned? To a whole school under the direction of the principal? To one teacher and be responsible to that teacher? To three or four teachers? How can we evaluate the effectiveness of the use of teachers' aides? What is the purpose of employing teachers' aides? What evidence of improvement in instruction can we find?

How is a teachers' aide program inaugurated in a school? Should the teachers be consulted? Should the teachers assist in the selection of teachers' aides?

What is the relationship of teachers' aide to teacher? Of teachers'

aides' organizations to the ATA? Should the ATA bargain for teachers' aides?

These are some of the questions that the Provincial Executive Council of the Association has been facing in the last year or two since the use of teachers' aides has become more and more widespread. Following a study by the ATA Teacher Education and Certification Committee, the Executive Council adopted the following policies as an interim position on teacher aides.

That the specific functions or duties of teachers' aides should not be defined by statute or departmental regulations at this time.

That the ATA advocate permissive legislation which would make legal the employment of teachers' aides by school boards.

That the ATA advocate the use of the term "Teachers' Aides" be used to designate noncertificated personnel of all kinds who directly assist individual teachers or groups of teachers.

That the ATA advocate that the following principle be adopted as a guide for assigning duties of teachers' aides -- "Teaching functions which involve decisions regarding diagnosis of pupil difficulties, prescription of learning experiences and evaluation of pupil progress are the exclusive domain of professional (certificated teachers) staff."

That the ATA encourage locals, sub-locals, professional development committees, school staffs, etc., to undertake a study of the functions of teachers' aides so that teachers may be prepared to assume the new responsibilities involved.

That Provincial Executive Council favour the formation of an organization of teachers' aides to be affiliated with the ATA.

That teachers' aides who wish to become teachers must meet the same requirements as other teachers.

That teachers' aides must be assigned to a teacher or group of teachers and be responsible to the teacher or group. Where the aide is assigned to a group, one member must accept the responsibility of a coordinator.

In considering this interim position, it should be kept in mind that the Association has a number of policies of a more general nature that have already been adopted by the ARA. These are 2.A6, 2.B4, 2.B13, 5.A1, (11), 7.A14, and parts of 10.A6 and 10.B3.

The Association is continuing its study of the above questions and will be seeking the assistance of locals in finding solutions.

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* Reprinted in full from ATA News, April 10, 1970

Section II

5/6

THE ECKVILLE TEACHERS' AIDE PROJECT:

From Design to Implementation

A. A. Cleveland
Project Administrator, SEARCH

The educational programs and opportunities available to students attending small high schools have been the subject of much controversy and study in recent years. While much consensus exists as to the types of problems encountered by small high school students, there is little in the way of alternatives being proposed to ameliorate these problems. Indeed, other than the move to centralize schools, one can count but a handful of activities addressing themselves to these problems, and these are primarily in the United States.

In September, 1969, the Alberta Human Resources Council, in cooperation with the County of Lacombe, undertook to develop ways and means of improving and expanding the educational programs and opportunities available to the youth attending small high schools. The vehicle for developing various alternatives to achieve this purpose is known as Project SEARCH, which is an acronym for the Selection of Educational Alternatives for Rural Change.

* * * * * * * *

On September 24, 1969, SEARCH staff and the teaching staff of Eckville Junior-Senior High School met to discuss ways and means of establishing a school planning group (School Task Force). The discussion resulted in three teachers and the principal volunteering to serve on a committee which would examine the issue and develop recommendations for the consideration of both staffs.

On October 1, the voluntary committee met with a SEARCH staff member. The transcript of the meeting shows that the meeting began with the following statement being made by one of the teachers:

> "I have the general impression that the staff is unwilling to commit themselves in any way, shape, or form - even by accepting a position on a committee without knowing more of what is expected of that committee and how involved it is going to be. If we could have some assurance as to the time and expense that is going to be required from each individual, then this, perhaps, might be some starting point."

Thus, very early in the Project, SEARCH staff were confronted with a problem which was in urgent need of resolution if the Project were to be implemented in the school. The problem was that of the teaching staff being able to obtain time for participation.

The meeting, however, did not generate any suggestions or recommendations which could have lead to an amelioration of the problem.

At a SEARCH staff meeting on October 6, it was decided to approach the County of Lacombe with a proposal for obtaining financial resources which the schools could utilize in the solution to the problem.

On October 15, SEARCH staff informed the County of the nature of the problems and the proposal for ameliorating it. Specifically, SEARCH recommended:

1. That the County of Lacombe and HRRC jointly establish a fund for the Eckville School Task Force to be used for any purpose which had as its objective the provision of time for teachers to become actively involved in Project SEARCH.
2. That the following conditions govern expenditure for this fund:
   a) That decision as to the specific uses of the fund be made by the School Task Force, in consultation with the principal, under the conditions that it meet the purposes of fund, that it does not contravene County policy, and that it does not commit the County or HRRC to continuing expenditures.
   b) That the initial fund cover the period ending August 31, 1970.
3. That SEARCH was prepared to contribute to the fund on a matching basis with the County of Lacombe up to a maximum SEARCH contribution of $2500.

On October 16, the voluntary committee met once again to discuss the proposal which had been forwarded to the County and to suggest ways of utilizing the monies. Suggestions brought forward included the hiring of substitutes and additional staff; reorganizing the timetable; and releasing teachers from clerical tasks. The meeting concluded, however, with no specific recommendations being brought forward.

On November 3, the voluntary committee met once again. The transcript of that meeting recorded the following discussion:

Teacher A: If my sociology class does go ahead with this photography thing, and it would only involve part of the class, who would look after the rest of the class?

Teacher B: What about a teacher's aide?

Teacher A: That sounds like the best idea.

Thus, it was not until the fourth meeting of the voluntary committee that the concept of non-professional assistance was brought forward. While the committee considered other alternatives, particularly that of an additional staff member, they once again hesitated to recommend a solution.

On November 12, SEARCH staff met with the County School Committee and were apprised of the County's willingness to contribute $1500 to the School Task Force Trust Fund.

The agreement establishing the Trust Fund was presented to, and accepted by, the voluntary committee at a meeting on November 19. The committee spent approximately two hours discussing alternative means of providing release time for teachers. Discussion focussed on two alternatives -- providing an additional staff member and reducing the non-professional task load. At the conclusion of the meeting, the committee agreed to send the principal to Edmonton so that he might visit schools which were using teachers' aides. This visit was made on November 21, 1969.

After the visitation of November 21, the principal and a SEARCH staff member discussed the possibility of analyzing the workload of the teaching staff so as to determine the extent of the non-professional task load. A meeting with the committee on November 24 resulted in their approval of a workload analysis. The instrument was administered on November 25 and the findings disseminated to the committee on November 26. The data revealed that:

1. Time devoted to instruction; ie. classroom teaching and lesson preparation, represented 76% of the total teacher workload.
2. Time devoted to supervisory and clerical activities, non-instructional tasks which may facilitate instruction, represented 24% of the total teacher workload.
3. Clerical activities, when measured against the total workload, represented 17.5% of the total workload.
4. The significance of these data may be seen more clearly when compared to the Professional Load of Alberta Teachers, a study conducted by the A.T.A. in 1963.

Task	Eckville	A.T.A.	
	(13 teachers)	Total sample	Secondary School Sample (1-15 teachers)
Classroom teaching	54.0%	49.5%	51.8%
Preparation	22.0%	22.6%	23.8%
Testing		10.0%	8.3%
Admin-Professional	17.5%	2.2%	2.4%
Admin-Clerical		2.2%	2.4%
Professional	n/a	4.9%	3.5%
Extra-Curricular	n/a	1.8%	1.2%
Supervision	6.5%	6.9%	6.3%

5. Of the activities engaged in by the teachers at Eckville Junior-Senior High School:

   a) 90% or more expressed the view that non-certificated personnel could adequately perform such tasks as:

      (1) typing tests and other materials

      (2) duplicating tests and other materials

      (3) inspecting, cleaning, and maintaining equipment

      (4) preparing A-V materials such as posters, charts, transparencies

      (5) noon-hour supervision

      (6) student study-period supervision

   b) 70% or more expressed the view that non-certificated personnel could adequately perform such tasks as:

      (1) tabulating and recording students' marks

      (2) collecting fees from students

      (3) obtaining, setting up, and operating equipment such as movie projectors, tape recorders, slide projectors

      (4) getting the classroom ready for the next day

      (5) playground supervision

6. The teachers felt that the utilization of non-certificated personnel would give them more time for:

   (1) preparing student activities

   (2) working with individual students

   (3) broadening the experiences and activities of students

At the meeting of November 26, the committee requested that SEARCH staff develop a proposal for implementing non-professional assistance and submit this proposal to the committee on December 3, 1969. On that date, the following outline proposal was brought before the committee:

PROPOSAL FOR THE TRY-OUT OF NON-PROFESSIONAL ASSISTANCE

I. OVERALL OBJECTIVE

To provide time for teachers to become actively involved in Project SEARCH.

II. SPECIFIC OBJECTIVES

1. To reduce the time spent by teachers in non-instructional tasks by the equivalent of one-third of the total time spent on these activities on December 1, 1969.
2. To provide personnel who will perform non-instructional tasks carried out by teachers as of December 1, 1969, to an equivalence of one-third of the total time spent on these tasks.
3. To provide teachers with an opportunity to work more closely with individual pupils.

III. DEFINITIONS

1. Non-instructional tasks: This term refers to activities presently engaged in by teachers which facilitate the instructional program of the school, but which are not legally required and/or not considered a professional activity.
2. Supervisory activities: This term refers to those activities which may be performed under the general direction of a certificated teacher, but which do not require the active participation of such a teacher.

IV. RECOMMENDATIONS FOR ACTION

1. Clerical and supervisory activities are activities which a teac rs' aide might best perform at Eckville Junior-Senior High chool:

Cler l Activities

(1) ills needed

yping

operation of duplicating equipment

office practice skills such as filing, calculating

bookkeeping

some artistic ability

(2) Space and Equipment needed

workroom with typewriter, worktable, and desk

easy access to duplicating equipment

easy access to general supplies

(3) Modes of Utilization

log book in which teachers identify type of service requested

no priority basis for service requests

requests should preferably be made one day in advance of due date

aide to be responsible to the school administration but not to infringe upon the normal duties of the school secretary

clerical actitivites of aide to occupy approximately thirty (30) hours per week

Supervisory Activities

(1) Skills Needed

ability to maintain school policies

athletic skills desirable but not essential

clerical skills

(2) Modes of Utilization

first priority to be given to noon-hour supervisory activites presently engaged in by teachers

second priority to be given to student study period supervisory activities presently engaged in by teachers

aide to be responsible to the school administration but not to usurp the professional duties of teachers

supervisory activities of aide to occupy approximately twenty (20) hours per week

2. Supervision

a) total teacher time allocated to supervision of student study periods in the junior high school is approximately thirteen hours per week

b) total teacher time allocated to noon-hour supervision is approximately ten hours per week

c) if teachers are absolved of student study period supervision, then:

(1) existing courses can be broadened

(2) more remedial work can take place

(3) more teacher preparation can occur

d) if aides are utilized to supervise student study periods, then consideration should be given to timetable reorganization so that personnel can be utilized in an efficient manner.

3. Responses to the workload analysis and personal interviews indicate that teachers are not fully knowledgeable of the activities a teachers' aide might carry out. Some concern was also expressed regarding possible aide infringement upon professional duties. If the foregoing are accurate observations, then consideration could be given to:
   a) bringing teachers and their aides to Eckville to meet with the Eckville staff
   b) conducting site visitations for some of the Eckville staff
   c) inviting representatives of the A.T.A. to meet with the Eckville staff
4. Consideration might be given to the utilization of business education students in clerical activities. Remuneration for such utilization could take the form of:
   a) financial considerations
   b) Special Project credits
5. The duties to be performed by the teachers' aide should be derived in consultation with the teaching staff.

After presentation and discussion of the proposal, the committee recommended: (1) that the proposal be brought before the teaching staff for their consideration; and (2) that further consideration be given to ways and means of utilizing the teachers' aides in the classroom. These recommendations were to be acted upon by December 17, at which time the committee would meet to re-draft the proposal.

The meeting of December 17, however, did not produce a redesign of the proposal; rather, an attempt was made to explicate the objectives. Particular emphasis was placed on the possible utilization of more than one aide so as to improve the educational program. To this end, SEARCH was asked to contribute an additional one thousand dollars to the Trust Fund. This request was aceded to in January, 1970. This meeting also saw the voluntary committee constitute itself as the Eckville School Task Force.

On January 14, the S.T.F. met to develop a proposal for the implementation of a Teachers' Aide Project. The proposal of December 3, 1969, constituted the core of the S.T.F. proposal. The proposal, however, omitted reference to the time reduction set out in Specific Objectives 1 and 2.

On January 29, the S.T.F., as a group, interviewed five applicants for the position of School Aide. Upon concluding the interviews, the S.T.F. recommended the appointment of two individuals -- one on a full time basis, and one on a part time basis -- to the position of Teachers' Aide.

On February 4 and 5, an in-service training program was conducted for the two aides. Particular emphasis was given to policies and statutory requirements of the A.T.A., County of Lacombe, Eckville School, and the Department of Education. In addition, the aides were instructed in the use of A-V, duplicating, laboratory, and library equipment.

On February 9, 1970, the Teachers' Aide Project in Eckville Junior-Senior High School was implemented.

Section III

17/18

A Task Analysis of the Work of Teachers' Aides in Eckville School

February 1 to May 30, 1970

Commencing with their employment at Eckville School in February, 1970, both teachers' aides, Wendy Lindsay and Nellie Grant have carefully maintained a log of their school activities. These records indicate the amount of teachers' aide time spent in various tasks. They also show the relative time and task demands made upon aides by different teachers.

A careful perusal of these logs suggested to the evaluation team that the bulk of work of teachers' aides in Eckville School can be conveniently analyzed into nine broad task headings or categories of work.

1. typing and duplicating
2. classroom supervision
3. lunch hour supervision
4. library assistance
5. cleanup (housekeeping chores)
6. preparing A-V or demonstration materials
7. miscellaneous clerical (filing, collating, stock taking, etc.)
8. research (library and resources search)
9. marking assignments and examinations.

These categories are not mutually exclusive. During classroom supervision, for example, teachers' aides frequently perform such other functions as marking, collating, or preparing instructional materials. It is important to note, therefore, that "classroom supervision" is a broadly inclusive category containing many time-saving activities not specifically accounted for elsewhere.

Table I shows the total time, in minutes, spent by both aides

(Lindsay and Grant) in the tasks of each work category, for the months of February through May. From this table, it is readily observed that "typing and duplicating" consumes the greatest portion of teachers' aide time. The omnibus category, "classroom supervision" makes the second biggest demand upon the aide's time. Lunch hour supervision follows for third position. These three task areas together account for 84 per cent of the total working time of the teachers' aides.

The data provided in Table I are presented separately for Wendy Lindsay in Table II and for Nellie Grant in Table III.

These tables provide profiles of activity which readily differentiate the principal roles of the two aides. Whereas Lindsay's predominant activity was typing and duplicating, Grant's was clearly one of classroom supervision. Moreover, Lindsay's time is rather broadly dispersed among all work areas in contrast to Grant's, which shows a narrow focus and greater specialization.

Inasmuch as working time, in minutes, is not comparable from month to month or between teachers' aides, the basic data of Tables I, II, and III are converted to percentages of total time and are presented in this form in Tables IV, V, and VI.

Despite the hazzards involved, project workers may wish to speculate about apparent trends in the data. Table IV, for example, suggests that over a three-month period increasing emphasis was placed upon the typing and duplicating service. This work category occupied 28 per cent of teachers' aide time in March, 34.5 per cent in April, and 40.4 per cent in May. Classroom and lunch hour supervision maintained a major claim upon teachers' aide time. Table V suggests that classroom

TABLE I

TASK ANALYSIS OF TEACHERS' AIDE ACTIVITY IN ECKVILLE SCHOOL

Distribution of Total Working Time in Minutes

for

Wendy Lindsay and Nellie Grant

Activity	Month				Total
	Feb.	March	April	May	
1. Typing and duplicating	3,340	3,316	4,355	5,023	16,034
2. Classroom supervision	2,360	4,000	4.160	3,810	14,330
3. Lunch hour supervision	1,440	2,160	2,100	2,290	7,990
4. Library assistance	129	700	845	180	1,854
5. Cleanup	375	280	565	490	1,710
6. Preparation of AV & dem. mat.	235	771	120	120	1,246
7. Miscellaneous clerical	270	170	135	475	1,050
8. Research	465	120	270	-	855
9. Marking	155	320	60	60	595
Total	8,769	11,837	12,610	12,448	45,664

Note 1: During classroom supervision, teachers' aides also performed many other functions such as marking, collating, and preparing of instructional materials.

Note 2: Lunch hour supervision includes coaching of recreational games.

TABLE II

TASK ANALYSIS OF TEACHERS' AIDE ACTIVITY IN ECKVILLE SCHOOL

Distribution of Working Time in Minutes

for

Wendy Lindsay

Activity	Month				Total
	Feb.	March	April	May	
1. Typing and duplicating	2,165	2,155	2,715	3,385	10,420
2. Classroom supervision	720	1,320	1,600	2,270	5,910
3. Lunch hour supervision	720	1,140	960	1,090	3,910
4. Library assistance	124	700	845	180	1,849
5. Cleanup	125	250	485	405	1,265
6. Preparation of AV & dem. mat.	105	720	115	120	1,060
7. Miscellaneous clerical	95	20	30	305	450
8. Research	465	120	270	--	855
9. Marking	135	300	60	60	555
Total	4,654	6,725	7,080	7,815	26,274

TABLE III

TASK ANALYSIS OF TEACHERS' AIDE ACTIVITY IN ECKVILLE SCHOOL

Distribution of Working Time in Minutes

for

Nellie Grant

Activity	Month				Total
	Feb.	March	April	May	
1. Typing and duplicating	1,175	1,161	1,640	1,638	5,614
2. Classroom supervision	1,640	2,680	2,560	1,540	8,420
3. Lunch hour supervision	720	1,020	1,140	1,200	4,080
4. Library assistance	5	-	-	-	5
5. Cleanup	250	30	80	85	445
6. Preparation of AV & dem. mat.	130	51	5	-	186
7. Miscellaneous clerical	175	150	105	170	600
8. Research	-	-	-	-	-
9. Marking	20	20	-	-	40
Total	4,115	5,112	5,530	4,633	19,390

TABLE IV

TASK ANALYSIS OF TEACHERS' AIDE ACTIVITY IN ECKVILLE SCHOOL

Distribution of Working Time in Percentages of Total Time for Wendy Lindsay and Nellie Grant

Activity	Feb. %	March %	April %	May %	Total %
1. Typing and duplicating	38.1	28.0	34.5	40.4	35.1
2. Classroom supervision	26.9	33.8	33.0	30.6	31.4
3. Lunch hour supervision	16.4	18.2	16.7	18.4	17.4
4. Library assistance	1.5	5.9	6.7	1.4	4.1
5. Cleanup	4.3	2.4	4.5	3.9	3.7
6. Preparation of AV & dem. mat.	2.7	6.5	1.0	1.0	2.7
7. Miscellaneous clerical	3.1	1.4	1.1	3.8	2.3
8. Research	5.3	1.0	2.1	-	1.9
9. Marking	1.8	2.7	0.5	0.5	1.3
Total	100	100	100	100	100

Note 1: During classroom supervision, teachers' aide conjointly performed many other functions such as marking, collating, and preparation of teaching materials.

Note 2: Lunch hour supervision includes coaching of recreational games.

TABLE V

TASK ANALYSIS OF TEACHERS' AIDE ACTIVITY IN ECKVILLE SCHOOL

Distribution of Working Time in Percentages of Total Time

for

Wendy Lindsay

Activity	Feb. %	March %	April %	May %	Total %
1. Typing and duplicating	46.5	32.0	38.3	43.3	39.7
2. Classroom supervision	15.5	19.6	22.6	29.0	22.5
3. Lunch hour supervision	15.5	17.0	13.6	13.9	14.9
4. Library assistance	2.7	10.4	11.9	2.3	7.0
5. Cleanup	2.7	3.7	6.9	5.2	4.8
6. Preparation of AV & dem. mat.	2.3	10.7	1.6	1.5	4.0
7. Miscellaneous clerical	2.0	0.3	0.4	3.9	1.7
8. Research	10.0	1.8	3.8	-	3.3
9. Marking	2.9	4.5	0.8	0.8	2.1
Total	100	100	100	100	100

TABLE VI

TASK ANALYSIS OF TEACHERS' AIDE ACTIVITY IN ECKVILLE SCHOOL

Distribution of Working Time in Percentages of Total Time

for

Nellie Grant

Activity	Feb. %	March %	April %	May %	Total %
1. Typing and duplicating	28.6	22.7	29.7	35.4	29.0
2. Classroom supervision	39.9	52.4	46.3	33.2	43.4
3. Lunch hour supervision	17.5	20.0	20.6	25.9	21.0
4. Library assistance	0.1	-	-	-	0.0
5. Cleanup	6.1	0.6	1.4	1.8	2.3
6. Preparation of AV & dem. mat.	3.2	1.0	0.1	-	1.0
7. Miscellaneous clerical	4.3	2.9	1.9	3.7	3.1
8. Research	-	-	-	-	-
9. Marking	0.5	0.4	-	-	0.2
Total	100	100	100	100	100

supervision gained in relative importance for Lindsay whereas lunch hour supervision declined somewhat. The very opposite trend may be noted from Table VI for Grant.

Library assistance, both rose and fell sharply over a period of two months as teachers' aide activity. This is especially true for Lindsay (see Table V). "Cleanup" and related housekeeping functions appears to have remained a fairly constant part of the work load of teachers' aides. On the other hand, "research work", "instructional materials preparation", and "marking" appear to receed over the four-month interval, from the aide's role.

Table VII presents the amount of time spent by teachers' aides at the request of different teachers. Caution must be exercised in the interpretation of the first entry. Thorsell, the principal, did not personally use teachers' aides but nevertheless assigned some 36 per cent of their work. As Table IX indicates, 99.3 per cent of the work assigned by Thorsell falls in the areas of classroom and lunch hour supervision. Assuming this to be the shared responsibility of all teachers, a more accurate picture may result by partitioning the 16,610 minutes assigned by Thorsell, equally among all teachers.

Table VIII and IX present a breakdown of the total working time of the two teachers' aides. Time spent in the service of each teacher and how that time is distributed among various work activities is provided in Table VIII in terms of minutes. The same data is presented in Table IX in terms of percentages of total time spent at the request of each teacher.

Tables VIII and IX highlight the different usages made of aides

TABLE VII

DISTRIBUTION OF TEACHERS' AIDE TIME AMONG STAFF MEMBERS, IN MINUTES AND AS A PERCENTAGE OF TOTAL WORKING TIME

Teacher	Minutes	Percent
1* (Principal)	16,610	36.4
2*	4,483	9.8
3*	3,405	7.5
4*	3,233	7.1
5	2,350	5.1
6	2,316	5.1
7	2,120	4.6
8*	2.105	4.6
9	1,560	3.4
10	1,309	2.9
11	1,015	2.2
12	970	2.1
13	875	1.9
14	825	1.8
15	740	1.6
16	633	1.4
17	400	0.9
18	223	0.5
19	190	0.4
20	302	0.7

* Members of School Task Force of Project SEARCH during the time of the study.

TABLE VIII

DISTRIBUTION OF TEACHERS' AIDE TIME SPENT IN VARIOUS FUNCTIONS FOR EACH STAFF MEMBER

(Time Given in Minutes)

Work Category	Teacher																				Total Mins.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Typing and duplicating	30	1794	2085	1642	330	2271	920	1095	760	1154	500	970	355	825	210	633	-	153	130	172	16029
Classroom supervision	8510	1280	480	340	-	-	1200	40	780	120	140	-	520	-	520		400				14330
Lunch hour supervision	7990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7990
Library assistance	-	4	-	5	1825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	1854
Cleanup	60	165	-	585	-	-	-	900	-	-	45	-	-	-	-						1755
Preparation of AV & Dem. Mat.	-	425	140	351	-	15	-	15	-	15	210	-	-	-	10			10	60		1251
Miscellaneous clerical	20	185	-	250	195	30	-	55	20	20	120	-	-	-	-					110	1005
Research	-	525	330	-	-	-	-	-	-	-	-	-	-	-	-			60			915
Marking	-	105	370	60	-	-	-	-	-	-	-	-	-	-	-						535
Total	16610	4483	3405	3233	2350	2316	2120	2105	1560	1309	1015	970	875	825	740	633	400	223	190	302	45664

TABLE IX

DISTRIBUTION OF TEACHERS' AIDE TIME SPENT IN VARIOUS FUNCTIONS FOR EACH STAFF MEMBER, AS A PERCENTAGE OF TOTAL TIME SPENT FOR THAT STAFF MEMBER

Work Category	Teacher																				Total %
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Typing and duplicating	0.2	40.0	61.2	50.8	14.0	98.1	43.4	52.0	48.7	88.2	49.3	100.0	40.6	100.0	28.4	100.0	-	68.6	68.4	56.9	35.1
Classroom supervision	51.2	28.6	14.1	10.5	-	-	56.6	1.9	50.0	9.2	13.8	-	59.4	-	70.3	-	100.0	-	-	-	31.4
Lunch hour supervision	48.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.5
Library assistance	-	0.1	-	0.2	77.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	4.1
Cleanup	0.4	3.7	-	18.0	-	-	-	42.8	-	-	4.4	-	-	-	-	-	-	-	-	-	3.8
Preparation of AV & Dem. Mat.	-	9.5	4.1	10.9	-	0.6	-	0.7	-	1.1	20.7	-	-	-	1.4	-	-	4.5	31.6	36.4	2.7
Miscellaneous clerical	0.1	4.1	-	7.7	8.3	1.3	-	2.6	1.3	1.5	11.8	-	-	-	-	-	-	-	-	-	2.2
Research	-	11.7	9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0
Marking	-	2.3	10.9	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	26.9	-	-	1.2
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

by teachers. Whereas some teachers (notably 2, 3, 4, 8, and 11) appear to utilize teachers' aides for a rather broad spectrum of activities, other teachers use them in a much more limited or restricted way.

Appendix IV provides a further breakdown of the distribution of teachers' aide time among the various work activities over the four-month span, for each teacher, separately. From this data, individual teachers may note trends in their personal method or style of employing teachers' aides.

As Table VII clearly indicates, members of the Eckville School Task Force of SEARCH, generally, have made greatest use of the teachers' aide service. This, no doubt, is in keeping with the original plan and purpose of the Eckville Teachers' Aide Project.

An Analysis of Teaching Practice

in Eckville School

Before and After the Introduction

of Teachers' Aides

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Section IV

For purposes of this report "teaching" is defined as the practice or profession of a teacher. In brief, "teaching is what teachers do". Viewed in this manner, teaching consists of a broad set of role behaviors, such that "instruction", for example, forms but a single subset of the total enterprise. The behaviors which constitute the practice of teaching also are conceived as systematically related. Teaching, then, is not a jumble of random activity, but an orderly and purposeful synthesis of myriad constituent acts.

Teachers vary considerably in the design of their practice, ie., in the precise manner in which they distribute their time and energy among the component aspects of their work. Idiosyncratic consistencies in the deployment of time and attention constitute a "teaching style". Like all habit patterns, such teaching styles are relatively stable, but nevertheless amenable to change. The purpose of teachers' aides, generally, is to permit or provide for changes in teaching style.

This section of the report may thus be construed as a study of "teaching styles" in Eckville School, before and after the introduction of teachers' aides. The study was made possible by the courage and cooperation of eight teachers, who in the interests of "science" and "self-knowledge" offered several of their working days to the constant surveillance of research observers.

Most studies of professional role are based upon questionnaire data (eg. "The Workload of Canadian Teachers," C.T.F., 1962; "The Professional Load of Alberta Teachers," A.T.A., 1963). Questionnaires

typically provide several task headings of arbitrary number and nature. Respondents are asked to estimate the amount of working time they regularly devote to designated categories of work. Questionnaires of this nature, although apparently reliable, have doubtful validity. Reported measures are gross approximations, at best, and are highly subject to the vagaries of temporal perception, selective memory, social desirability set, and the like. Errors of measurement in such estimates thus are likely to be systematic and cumulative rather than random and self-cancelling.

When the questionnaire method was used to analyze teacher role at Eckville School in November, 1969, the following profile emerged: (see page 10):

1.	Classroom teaching	54 %
2.	Preparation	22 %
3.	Clerical/non-teaching	17.5%
4.	Supervisory activities	6.5%
		100 %

How valid is this picture? Aside from the high degree of subjectivity involved in self reports, the presentation of an extremely truncated set of task headings (four, in the illustration above) arbitrarily forces the assignment of much teacher behavior to inappropriate or maldescriptive categories. Can 100 per cent of teacher behavior

meaningfully be subsumed under these four task headings? Where, for example, would one assign "social interaction" and "professional consultation", which together account for approximately twenty-five per cent of the teacher's time at school.

To be sensitive and therefore useful for differentiating among various "teaching styles", a more accurate and detailed portrayal of teacher behavior is required. Assuming that ignorance ends and science begins with careful observation and measurement, a team of eight research assistants spent two days in January and another two days in May at Eckville School, observing and recording minute by minute all behaviors of their cooperating "targets". The activities of the teachers observed were indeed complex and varied.

A gross analysis of observations recorded in January, suggested a taxonomy of rural high school functions. This initial classification system was presented to teachers for criticism and revision. The revised model is presented in Appendix I and is used for the rather detailed task analyses presented in this section.

Table X lists the fifteen major headings of the taxonomy and provides the average time spent in minutes, per teacher per day in each function, at both T_1 and T_2. Table X also provides the mean percentage of time devoted, by observed teachers, to each designated function, at T_1 and T_2.

TABLE X

AN ANALYSIS OF TEACHING PRACTICE IN ECKVILLE SCHOOL

Before Teachers' Aides (T_1), and
Four Months After Their Introduction (T_2)

	Function	Time Devoted to Function (min./teacher/day)		Percentage of Time Devoted to Function	
		T_1	T_2	T_1	T_2
I.	Social Relations	68.7	63.3	14.5	14.6
II.	Supervision and Discipline	11.5	11.9	2.4	2.7
III.	Housekeeping	11.7	10.6	2.5	2.4
IV.	Personnel Logistics (movement)	17.2	9.6	3.6	2.2
V.	Hard and software logistics	6.0	5.8	1.3	1.3
VI.	In-house communication and consultation	44.1	43.3	9.3	10.0
VII.	Public Relations	26.6	29.0	5.6	6.7
VIII.	Clerical	43.1	32.8	9.1	7.6
IX.	Administrative	1.8	4.5	0.4	1.0
X.	Preparation of Instructional Materials	1.4	4.3	0.3	1.0
XI.	Instructional Planning and Preparation	24.9	15.7	5.2	3.6
XII.	Classroom Instruction	183.9	175.9	38.7	40.6
XIII.	Evaluation	29.0	19.6	6.1	4.5
XIV.	Counselling	0.6	2.6	0.1	0.6
XV.	Non-classifiable	4.6	5.0	1.0	1.2
	TOTAL	475 min.	434 min.	100%	100%

The observation time base covers all time during which the observed teacher was at school (eg. time before commencement, lunch hour, time after dismissal, etc.). Observations were not made of school activities taken as "homework", eg. professional reading, preparation, marking, etc. The observation time base, therefore, must be kept in mind when making comparisons. For example, Table X indicates that social relations account for 14.5% of the teachers' "time at school", whereas instructional planning and preparation accounts for only 5.2%. We may not conclude that teachers spend nearly thrice as much time socializing as they do planning and preparing. Perhaps the staffroom encourages social interaction, but the private study at home fosters planning and preparation. It is the time spent "at school" rather than total "professional time", that is accounted for by this study. Admitedly, the study takes no account of that part of "professional time" during which planning and preparation are likely to occur.

In perusing the data provided in this section, project workers are encouraged to make cautious "clinical" judgements. Workers "close to the scene" are often in the best position to provide hypothetical explanations for observed events. Consider the following observations and the questions they raise:

1. Average time spent "in school" at T_2 was some forty minutes per day less than T_1.

   Is this a seasonal effect? Is it a consequent of employing teachers' aides? Other explanations?

2. Much less time was spent "moving about" from one work area to another at T_2 than at T_1.

   Explanation?

3. Teachers spent an average of ten fewer minutes per day in clerical tasks at T_2 than at T_1.

   Although not a big change, it is in the direction predicted. Is it an outcome of the teachers' aide program?

4. Teachers spent an average of nine fewer minutes per day in "on-site" planning and preparation at T_2 than at T_1.

   This observation is quite inconsistent with anticipated "outcomes". Any explanations? According to the subjective impressions of teachers and students alike, teachers were, in fact, better prepared at T_2. Were they, indeed, so well prepared at T_2, that little further time was required for planning and preparation? Was the extra planning done "at home"?

5. Teachers spent about ten fewer minutes per day in "on-site" evaluation at T_2 than at T_1.

   Is this a seasonal fluctuation, due to academic schedule? Might it be a consequent of the teachers' aide program?

How <u>should</u> a teacher design or schedule his practice of teaching? The answer, of course, depends upon what he thinks teaching "is" or "ought" to be; ie., upon what he and the community he serves value or believe to be "relevant". If teaching is "standing before a group of people telling

them what they should be told", then perhaps we should strive to increase the proportion of time spent lecturing. If, however, teaching is primarily interaction, as some Eckville teachers have suggested, then surely we should try to increase the opportunities for teachers to interact with students. A teaching style, as the term is used in this report, cannot be judged good or bad apart from some criterion set of values. There are probably as many "ideal" teaching styles as there are teachers.

Table X provides to the Eckville School a reference profile or "base line" from which change, movement, or progress in any chosen direction can be measured.

Tables XI and XII provide profiles of "teaching style" for each teacher observed at T_1 and T_2. Table XI presents the time, in minutes, spent in specified functions during two days of observation. Table XII expresses the same data as percentages of the total observed time. The data summarized by these two tables is also provided in atomistic detail in Appendix II. Similarly, Appendix III presents the data summarized in Table X, in far greater detail.

Teacher code numbers or identification numbers in all tables in this section refer to their "rank" as users of the teachers' aide service. For example, "Teacher FOUR" made fourth greatest time demands upon teachers' aides. This method of designation should be kept in mind when perusing Tables XI and XII. If teachers are arranged according to

their demands upon teachers' aides, what trend should we expect from teacher to teacher for time spent in clerical functions at T_2? Note actual observations: Teacher 1: 7 min.; Teacher 2: 64 min.; Teacher 3: 5 min.; Teacher 4: 45 min.; Teacher 8: 64 min.; Teacher 9: 70 min.; Teacher 10: 98 min.; and Teacher 13: 220 min. The correlation is remarkable. Teachers who effectively utilized the services of teachers' aides spent considerably less time in clerical activities during the observed period (T_2).

TABLE XI

TASK ANALYSIS OF TEACHER ACTIVITY IN ECKVILLE SCHOOL

DISTRIBUTION OF TIME AMONG VARIOUS FUNCTIONS IN TOTAL MINUTES FOR TWO DAYS

T_1 - Jan. 20 and Jan. 22, 1970 (Before Aides)
T_2 - May 26 and May 28, 1970 (After Aides)

Function	Teacher -	One		Two		Three		Four	
	Time -	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
I. Social Relations		103	117	205	257	168	91	248	157
II. Supervision and Discipline		21	63	11	18	11	5	37	15
III. Housekeeping		66	45	5	3	16	6	7	8
IV. Personnel Logistics (Movement)		77	6	21	26	36	45	7	4
V. Hardware and Software Logistics		--	5	15	5	1	18	3	3
VI. In-House Communication and Consultation		264	201	71	58	73	94	61	93
VII. Public Relations		284	238	9	143	8	43	--	--
VIII. Clerical		19	7	55	15	80	5	51	45
IX. Administrative		--	38	--	2	--	--	--	--
X. Preparation of Instructional Materials		--	2	--	--	--	16	12	30
XI. Instructional Planning and Preparation		60	--	60	58	11	3	64	77
XII. Classroom Instruction		171	146	343	173	437	445	419	410
XIII. Evaluation		9	--	60	--	15	100	49	30
XIV. Counselling		--	--	--	42	--	--	--	--
XV. Non-Classifiable		2	--	7	11	7	10	32	17
TOTAL		1076	868	862	811	863	880	990	889

TABLE XI (Continued)

	Function	Teacher - Time -	Eight		Nine		Ten		Thirteen	
			T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
I.	Social Relations		113	77	91	85	108	125	63	103
II.	Supervision and Discipline		51	16	40	1	12	65	1	7
III.	Housekeeping		20	34	39	26	7	11	27	37
IV.	Personnel Logistics (Movement)		28	12	20	39	75	16	11	6
V.	Hardware and Software Logistics		29	15	45	38	3	8	-	-
VI.	In-House Communication and Consultation		162	99	6	19	40	107	28	21
VII.	Public Relations		108	23	-	-	17	2	-	16
VIII.	Clerical		121	64	118	70	112	98	134	220
IX.	Administrative		16	9	-	3	13	18	-	2
X.	Preparation of Instructional Materials		-	20	-	-	-	-	10	-
XI.	Instructional Planning and Preparation		56	7	31	40	60	49	56	17
XII.	Classroom Instruction		308	502	471	497	414	293	379	348
XIII.	Evaluation		27	38	7	-	143	70	153	75
XIV.	Counseling		10	-	-	-	-	-	-	-
XV.	Non-Classifiable		-	9	2	19	11	4	12	10
	TOTAL		1049	925	870	837	1015	866	874	862

TABLE XII

TASK ANALYSIS OF TEACHER ACTIVITY IN ECKVILLE SCHOOL

Time Spent in Function as a Percentage of Total Time
T_1 - Jan. 20 and Jan. 22, 1970 (Before Aides)
T_2 - May 26 and May 28, 1970 (After Aides)

	Function	Teacher -	One		Two		Three		Four	
		Time -	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
I.	Social Relations		9.6	13.5	23.8	31.7	19.5	10.3	25.1	17.7
II.	Supervision and Discipline		2.0	7.3	1.3	2.2	1.3	0.6	3.7	1.7
III.	Housekeeping		6.1	5.2	0.6	0.4	1.9	0.7	0.7	0.9
IV.	Personnel Logistics (Movement)		7.2	0.7	2.4	3.2	4.2	5.1	0.7	0.4
V.	Hardware and Software Logistics		--	0.6	1.7	0.6	0.1	2.0	0.3	0.3
VI.	In-House Communication and Consultation		24.5	23.2	8.2	7.2	8.5	10.7	6.2	10.5
VII.	Public Relations		26.4	27.4	1.0	17.6	0.9	4.8	--	--
VIII.	Clerical		1.8	0.8	6.4	1.8	9.3	0.6	5.2	5.1
IX.	Administrative		--	4.4	--	0.2	--	--	--	--
X.	Preparation of Instructional Materials		--	0.2	--	--	--	1.8	1.2	3.4
XI.	Instructional Planning and Preparation		5.6	--	7.0	7.2	1.3	0.3	6.5	8.7
XII.	Classroom Instruction		15.9	16.8	39.8	21.3	50.6	50.6	42.3	46.1
XIII.	Evaluation		0.8	--	7.0	--	1.7	11.4	4.9	3.4
XIV.	Counseling		--	--	--	5.2	--	--	--	--
XV.	Non-Classifiable		0.2	--	0.8	1.4	0.8	1.1	3.2	1.9
	TOTAL		100	100	100	100	100	100	100	100

TABLE XII (Continued)

Function	Teacher -	Eight		Nine		Ten		Thirteen	
	Time -	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
I. Social Relations		10.8	8.3	10.5	10.2	10.6	14.4	7.2	11.9
II. Supervision and Discipline		4.9	1.7	4.6	0.1	1.2	7.5	0.1	0.8
III. Housekeeping		1.9	3.7	4.5	3.1	0.7	1.3	3.1	4.3
IV. Personnel Logistics (Movement)		2.7	1.3	2.3	4.7	7.4	1.8	1.3	0.7
V. Hard and Software Logistics		2.8	1.6	5.2	4.5	0.3	0.9	--	--
VI. In-House Communication and Consultation		15.4	10.7	0.7	2.3	3.9	12.4	3.2	2.4
VII. Public Relations		10.3	2.5	--	--	1.7	0.2	--	1.9
VIII. Clerical		11.5	6.9	13.6	8.4	11.0	11.3	15.3	25.5
IX. Administrative		1.5	1.0	--	0.4	1.3	2.1	--	0.2
X. Preparation of Instructional Materials		--	2.2	--	--	--	--	1.1	--
XI. Instructional Planning and Preparation		5.3	0.8	3.6	4.8	5.9	5.7	6.4	2.0
XII. Classroom Instruction		29.4	54.3	54.1	59.4	40.8	33.8	43.4	40.4
XIII. Evaluation		2.6	4.1	0.8	--	14.1	8.1	17.5	8.7
XIV. Counseling		1.0	--	--	--	--	--	--	--
XV. Non-Classifiable		--	1.0	0.2	2.3	1.1	0.5	1.4	1.2
TOTAL		100	100	100	100	100	100	100	100

The Reactions of

- Teachers

- Students

- Teachers' Aides

- The Superintendent

- Community Members

to The Employment of Teachers' Aides

in the Eckville School

SECTION V

PROCEDURE FOR THE COLLECTION AND ANALYSIS OF DATA

The data reported in this section were collected through extensive interviews during the first two weeks of June, 1970. At this time, two teachers' aides had been at work in the Eckville School for a period of four months.

All interviews were conducted by Dave Clarke, HRRC research assistant. A total of 15 teachers, including the principal, counsellor, librarian, and an intern were separately interviewed. Student reactions were obtained through group discussions. Eight discrete groups or classes representing grades seven through 12 were interviewed in this manner. Both teachers' aides and the superintendent of schools were interviewed. Community reactions are based upon 13 interviews with members of the Community Task Force of SEARCH, a county councilor, a member of the County school committee, an ex-teacher, and members of the community at large.

Stuart McRae, HRRC research assistant, assumed responsibility for organizing interview-derived data into meaningful categories with frequency counts on virtually identical comments. Numbers in parenthesis following each response indicate the frequency with which that response occurred in the specified reference group.

PERCEPTIONS AND COMMENTS OF ECKVILLE TEACHING STAFF
(N = 15)

I. Regarding tasks performed by teachers' aides

A. Adequate performance:

- clerical work, typing and duplicating (11)
- noon-hour supervision (4)
- study supervision (4)
- assistance in maintaining classroom order (3)
- helping teachers in group work with classes (3)
- preparing teaching materials (3)
- setting up audio-visual equipment (2)
- preparing and cleaning laboratory equipment (2)
- library research and preparation of bibliographies (2)
- assisting teachers with evaluations (1)
- helping individual students (1)
- helping to design and prepare courses (1)
- assisting part of class while a teacher works with the remainder (1)
- supervising class while teacher is away (1)

B. Inadequate performance:

- study supervision: teachers' aides initially had weak control and needed help in this area (11)
- teachers' aides are least valuable on their own in a classroom (1)

II. Regarding acceptance of teachers' aides

A. Acceptance by teachers:

- teachers enjoyed a good relationship with aides (8)

- aides were cooperative and willing (4)

- aides attempted and did reasonably well everything requested (3)

- most teachers appreciate aides, especially for clerical duties (3)

- aides present no particular problems to the school (2)

- teachers treated the aides with respect (2)

- aides accepted a subordinate role (1)

- aides often asked for more work (1)

- aides offered many useful suggestions (1)

- two or three teachers refused to use them (1)

B. Acceptance by the public:

- the public doesn't have many comments other than some questioning of the need for aides (2)

- parents are not aware of aides. Many are not interested in school affairs (1)

- no strong public support (1)

C. Acceptance by students:

- aides seem more friendly to students than are teachers (1)

- junior high school students try to take advantage of aides by asking for privileges counter to school policy (1)

- senior high school students appreciate the service of the aides (1)

III. Regarding the effects of teachers' aides in the Eckville School

A. Positive effects:

- aides enabled teachers to devote more time to preparation and more attention to individual students (9)

- quality of instruction has improved (4)

- staff communication has improved (4)

- aides were useful for releasing teachers to participate in Project SEARCH (2)

- teachers have been freed for more professional tasks (2)

- the secretary can now do more work for the principal (2)

- aides provide more time for the teacher to teach (1)

- there is now more time for professional consultations with fellow teachers and the administration (1)

- "My instruction has improved as a result of the aides." (1)

- teachers' job satisfaction has improved (1)

- I am more cheerful (1)

- there is now more time for parent-teacher communication (1)

- we didn't plan to use them in the classroom but they were effective (1)

- because they weren't overworked, they also helped in the elementary school (1)

- those teachers who made enough use of aides had a professional role change; ie. more planning, individual instruction, etc. (1)

B. Negative effects:

- students do not respect the authority of aides in supervised studies (1)

- little change has occurred in teachers' role (1)

- the program has merit, but I question the effect on instructional improvement (1)

- some teachers do and some don't provide more individual projects now (1)

IV. Regarding the personal attributes and qualifications necessary for teachers' aides

- it depends on who you select, not upon extraneous factors such as age, sex, etc. (6)

- a pleasant, flexible personality (no rigidity) (4)

- a man would be better for supervision (3)
- aides require typing skill and clerical training (3)
- women make the best school aides (2)
- aides must be mature and responsible (2)
- aides must be able to establish good interpersonal relationships with teachers and pupils (1)
- aides must be flexible, willing to learn and cooperative with teachers (1)
- aides must be generalists with a variety of skills and qualities (1)
- their training depends on the duties they are needed for (1)
- good aides should have one year of teacher training (1)
- aides need senior matriculation to know courses (1)
- training must be on the job (1)
- aides should be familiar with the library (1)
- aides should be familiar with the student body (1)
- aides should have high school diploma (1)
- aides should write and speak English well (1)
- personality makes no difference; obedience is required (1)

V. <u>Regarding the teachers' aide project at Eckville and its potential weaknesses</u>

- aides needed more training and supervision (6)
- aides should not be used for classroom work or for preparing tests (3)
- aides should not be used to do professional work but some teachers were using them in this way (2)
- some teachers initially monopolized the services of the aides (2)
- teachers need more training in the use of aides (2)
- teachers should help in the training and supervision of aides (1)

- aides hesitate to get teacher assistance with supervision (1)

- supervision of studies must change (1)

- teachers, not aides, should supervise studies (1)

- I disagree with the way aides are being used (1)

- the management of school aides needs improvement (1)

- the role of the teachers' aide in study periods should have been explained to students (1)

- a set of rules should govern the use of aides (1)

- some teachers expect too much from aides (1)

- some teachers use aides for busy work; teaching should be interaction, not a waste of paper (1)

- some teachers don't utilize aides enough (1)

- better information as to the availability of aides would have resulted in more extensive use (1)

- aides are sometimes too busy when needed most (1)

- Grades 5 and 6 should not use aides as they do not participate in Project SEARCH (1)

- aides were for high school but are used by junior high school teachers (1)

VI. Regarding the continuation of the teachers' aide project and possible changes that might be made

- if available, I would make better use of teachers' aides in the future (4)

- the teachers' aide project should continue with several modifications (3)

- more experimentation with the roles of aides is needed (2)

- if more aide time were available, I would like to experiment with alternative uses of teachers' aides (2)

- the program should continue, especially for clerical assistance but also noon-hour supervision (1)

- I will use them more next year as I will be working with new materials (1)

- next year I would use aides quite as much as this year (1)

- in the future, I would use them more but I need to know <u>how</u> to use them effectively (1)

- in the future, I will use them more in the classroom (1)

- I would like to use aides more in preparation of materials (1)

- I would like to try using aides in class group work (1)

- I didn't use them in class but I should have (1)

- although it was not a serious problem, areas of responsibility of aides should be defined (1)

- a definition of professional and non-professional tasks must be made (1)

- teachers must agree on the expectations of aides to eliminate many concerns (1)

- there should be few restrictions; keep the use of aides <u>flexible</u> (1)

- if teachers' aides are used in the classroom, more time must be provided for their training and supervision (1)

- given enough time, the aides could serve everyone (1)

- more consultation with aides is needed (1)

- in future, aides might be assigned to groups of teachers; eg. five Science teachers served by one aide; five Art-English teachers served by one aide (1)

VII. <u>General comments</u>

- as we become more accustomed to the use of teachers' aides, increasing benefits will result (3)

- I would miss them if we didn't have them next year (3)

- aides can't improve teaching, only teachers can (1)

- I supervise my own studies so I have no problem there (1)

- I have little need for teachers' aides as my materials were all prepared (1)

- aides are especially useful in foreign language class (1)

- aides are not used in counselling (1)

- I hope the program continues (1)

- very good program, keep it up (1)

- aides are used very little in the library, as students help there (1)

- I wonder if, in the future, this will effect the teachers' position. Aren't they cutting their own throats? (1)

- whether quality of instruction has improved depends on your values, so I can't say (1)

- the program is valuable to me directly and to the students indirectly (1)

- aides will not replace teachers but will improve the quality of education (1)

- aides are useful, even in small classes (1)

- the program is valuable, providing there is open communcation (1)

- aides have lightened my load; "re-tuned" me (1)

- I don't know how I would have managed without an aide this year (1)

- it has meant much to have my noon hours free (1)

- they seem very busy; never out of work (1)

- their use will not and should not increase pupil to teacher ratio (1)

- I see no problems with the teachers' aide program (1)

- overall effectiveness of the program is hard to judge. There are some positive results, some negative (1)

PERCEPTIONS AND COMMENTS OF ECKVILLE STUDENTS
(N = 8 groups)*

I. Regarding the work of teachers' aides

- they supervised noon hours and spares (7)

- they do a lot of typing (7)

*Comments made in a group are unlikely to be repeated by other group members.

- they clean up rooms (4)
- aides supervise options (2)
- aides set up labs (keep them organized) (2)
- they prepare handouts and materials (2)
- they supervise classes (2)
- they give group help (2)
- they help teachers pass out papers (1)
- they supervise exams (1)
- they mark papers (1)
- aides help in class discussions (1)
- aides shouldn't set up science equipment as that is a teacher's job (1)

II. Regarding the influence of teachers' aides on students

- aides are less strict, more friendly than teachers (4)
- we get less work done in spares (3)
- they don't supervise us so we have an open climate (2)
- we now get 45 minutes out of 45-minute classes (less waste) (2)
- we now get work back faster (2)
- they enable us to get more individual attention (2)
- they help us do library research and this allows us to cover more material (1)
- exams are neater as they are typed, not written (1)
- we have more projects and help from our teacher (1)
- we cover more material now (1)
- classes are organized differently and discussion has increased (1)
- aides are less able to help us in studies (1)

- I get fewer detentions (1)
- school is more fun now because aides give us more freedom and privileges (1)
- we get into more trouble because of less strict supervision (1)
- discipline is unclear; students doubt the authority of teachers' aides (1)
- by helping teachers, aides indirectly help students (1)
- very little direct effect on us (1)
- little difference, perhaps slight improvement (1)
- aides have improved things slightly; any change is positive (1)
- we never had much chance to know or use the aides ourselves (1)
- they help us at noon (1)
- rooms are checked for cleanliness more often (1)

III. Regarding the influence of teachers' aides on teachers

- teachers are now better prepared (3)
- typing has improved in quality (3)
- teachers are better organized (1)
- quality of teaching is unchanged (1)
- they allow teachers to have more free time (1)
- materials are better prepared (1)
- more materials are now given out and they are typed (1)
- there are more science experiments (1)
- there is more material covered in some classes (1)
- little difference in the length of time for marks to be returned (1)
- little change in audio-visual use (1)
- to be really effective, there should be more aides; ie. one for every four or five teachers (1)

- aides are sometimes taken advantage of by teachers (1)

IV. Regarding the personal attributes and training required by teachers' aides

- personality of aide very important (4)
- personality and ability to get along with people are more important than age, sex, and training (2)
- the aide should understand young people (2)
- aides should be young (2)
- men might be better for discipline (2)
- aides need better training in school subject matter (2)
- aides should have a one-month refresher course in school subjects (1)
- aides must have the courage to talk to kids about school life (1)
- age is not so important as we like both of the aides (1)

V. General comments

- I would enjoy being a school aide (2)
- aides could be substitute teachers and would be better than substitutes if they had already worked with the class (1)
- marking of tests could be done by aides (1)
- younger aides should be on call to help high school kids with school work and student affairs (1)
- we like the aide better than teachers because we get more freedom (1)
- boys are a discipline problem for aides in spares (1)
- aides should be available to students (1)
- aides could do some teaching (1)
- if they don't return next year, we will miss them as personalities (more than we would many teachers) (1)
- they should not be familiar with students but should be socially involved (1)

- we like the aides because they are nice people. They are not as strict as teachers (1)

- aides are a good thing and we need them (1)

- we hope there are aides next year (1)

- generally, aides are a good idea (1)

PERCEPTIONS AND COMMENTS OF ECKVILLE SCHOOL AIDES
(N = 2)

I. Regarding their role in Eckville School

- aides do tasks which free teachers for professional duties (2)

- I helped most with typing and preparing materials (1)

- I liked working directly with the kids the best (1)

- I liked typing and preparing materials best (1)

- I contributed best in library reference collections and guiding students to references (1)

- I helped one teacher redesign a course and this was important (1)

- I was asked to coach a baseball team, which was unexpected (1)

- the lab was where I worked mainly with "things" (1)

- I got the jobs I could and should do. I once refused to give a lesson because I felt unqualified (1)

- we did very little preparation of films, transparencies, etc. (1)

- teachers do involve us in tasks and trust us to be in their confidence (1)

- the aide can make contributions in group work, helping kids catch up to class and in the clerical area (1)

- I do not tell teachers how to do things but I may offer suggestions after some experience (1)

II. Regarding the difficulties and limitations they encountered

- at first we lacked direction from teachers, especially regarding supervision. There is enough direction now, though (1)
- I needed more time to consult with teachers about how to deal with kids (1)
- I needed more guidelines by teachers regarding studies (1)
- due to a misunderstanding, I didn't get the support I needed in my supervisory responsibilities (1)
- I wasn't able to handle study chores at first (1)
- I least like unruly study classes (1)
- I least like cleaning things (eg. machinery) (1)
- I was asked to pri... ncils and I didn't know how (1)
- I was least confident about my work in the lab with chemicals (1)
- there were communications problems with some teachers (1)
- I was not flexible enough (1)
- I was inexperienced at working with kids (1)
- I wish that the teachers asked for more of my services (1)

III. Regarding the attributes and qualifications required for teachers' aides

- clerical skills are an asset (1)
- female (below 40 and over 19) best suited to the job (1)
- aides must be open, mature, and with professional aura about them (1)
- aides need typing and lab skills (1)
- younger persons might be more sensitive to kids' ways (1)
- aides should have grade 12 for reading, spelling, chemistry, and math skills, so they can "coach" kids with school problems (1)
- library training helps resource searching (1)
- an important personal quality is not to get frantic when the kids act up (1)

- you need to be able to learn along with the students to be able to aid group work (1)

- on-the-job training is best (1)

- aides should be briefed or trained more thoroughly; ie. two months' training in school routines and how to cope with personal confrontations (1)

- I can't suggest many changes (1)

- I am satisfied that I wouldn't do things much differently at another school (1)

IV. General comments

- I would like to continue as a teachers' aide (1)

- I get along well with the janitor and librarian (1)

- generally, our relationships with teachers are good (1)

- some teachers gave the impression that "I am a professional; you are not". I want to be regarded with respect by teachers (1)

- we were well briefed by Al Cleveland and this helped (1)

- I appreciate seeing how a school runs (1)

- I would offer to work unpaid to help out in the school. It helps me understand my own kids (1)

PERCEPTIONS AND COMMENTS OF THE SUPERINTENDENT

General comments

- some Board members are asking questions. They don't think teachers are overworked

- the Board doesn't know if the program is successful. If they saw a need for it they would "buy" it

- I'm not sure of the teachers' aides' intended role, or how well they are accomplishing it

- there is no general agreement within the profession as to the duties of aides

- I have some concern about what aides will do to the teaching profession. Is there a danger?

- perhaps inter-staff conflict has occurred due to placement of aides in only one school. This may develop a staff split

- although there is some envy at other schools, I don't think they would compromise by reducing professional staff to secure aides

- generally, teachers don't talk much about the need for teachers' aides

PERCEPTIONS AND COMMENTS OF COMMUNITY MEMBERS
(N = 13)

I. Regarding the objectives of the teachers' aide program

- to allow teachers more time for professional duties (5)

- to allow teachers more time to work with individual kids (increase personal contact) (2)

- help teachers to help kids (2)

- allow teachers to do the job they are paid to (not waste time and money) (2)

- help satisfy teacher needs (2)

- reduce number of teachers needed (increase pupil to teacher ratio) (2)

- lower costs in education (2)

- help weed out ineffective teaching staff (1)

- improve quality of instruction by giving teachers more time (1)

II. Regarding the utilization of teachers' aides

- aides do clerical work, freeing teachers for class work (2)

- they do non-professional work (like a nurses' aide) (1)

- they do housekeeping chores (1)

- they lessen the teachers' burden by doing typing, supervision, and gathering materials (1)

- they assist with clerical work, map preparation, and supervision (1)

- they help individual students with remedial work (1)

- aides have personal contact with students discussing problems and student government (1)

- aides should not be left in charge of classes, as students need professional guidance (1)

- aides should not be trained (ie. professionally), other than their on-the-job training for the proper effect (1)

III. Regarding the acceptance of teachers' aides

- teachers are more satisfied; therefore, teaching quality is improved (1)

- the A.T.A. is probably against the concept and will attempt to eliminate the use of aides (1)

- HRRC programs are poorly publicized as are school changes, and this results in envy and community power struggles and concerns (1)

IV. Regarding the effectiveness of the teachers' aide program

- good, program should be continued (2)

- good program if teachers don't abuse it (2)

- aides will become an institution of the future (1)

- the project is probably a good thing (1)

- they should make education more efficient (1)

- they are a good thing and I hope the number of aides increases (1)

- good program if it frees teachers for professional duties and they use their time effectively (1)

- if aides help teachers help the kids, they are useful (1)

- its effect is primarily on teachers, so parents must respect and accept the opinion and evaluation of the teachers (1)

- not good if aides are simply unqualified teachers (1)

- if they are doing the work for the teachers, they are not a good thing (1)

- the program has had little obvious effect (1)

- if there is no evidence that aides are permitting a reduction in teaching staff, then they are not serving their purpose (1)

- change makes people sit up and take notice of education and this is a good thing (1)

V. Community recommendations

- more information is needed by parents about this type of program (4)
- if aides don't add to the schools' effectiveness, or if the teachers are not using their extra time effectively, then fire the aides (1)
- hire more teachers instead of the aides; the teacher shortage is over (1)
- they should be tried, a record kept of their jobs and this should be publicized (1)
- ineffective teachers should not be kept on simply because of their positions (1)

SUMMARY OF CONCLUSIONS

I. Emerging from Teacher Interviews

a. By and large, Eckville teachers appreciate the clerical work, typing, and duplicating service offered by teachers' aides. They also regard it as proficient.

b. Eckville teachers were generally dissatisfied with the supervision of student behavior provided by teachers' aides. Nevertheless, several teachers were pleased to be relieved of this task. This observation suggests that alternative modes of "policing" student behavior (through the open climate school, student government, etc.) might profitably be explored.

c. With few exceptions, Eckville teachers enjoyed a good working relationship with their aides.

d. Eckville teachers generally regard the most essential attributes of a teachers' aide to be:

- a pleasant, flexible personality
- ability to relate and communicate with others
- willingness to learn and to cooperate
- clerical skills

e. Eckville teachers generally perceived the effects of teachers' aides in their school as positive. Most teachers felt that they had more time for professional tasks. Many of their comments suggest that teachers' aides may have had a positive effect upon the school atmosphere.

f. By and large, Eckville teachers would like to see the continued employment of teachers' aides, but with modifications made to

the original operation.

g. Operational needs most commonly recognized by Eckville teachers are:

1. more training and supervision of aides
2. a clarification of roles (professional vs non-professional)
3. experimentation and/or guidance in the effective utilization of aides
4. better procedures for assigning and coordinating the work of aides to assure equitable distribution of service among teachers.

II. Emerging from Student Discussions

a. Eckville students are quite aware and generally pleased with the contribution of teachers' aides in their school. The most commonly recognized influence on their education is that:

- teachers are better prepared, and
- the quality of handout material has improved.

b. Eckville students appreciate the friendly attitude, helpfulness, and greater freedom permitted by teachers' aides. Some students, especially boys, are accused of having taken advantage of the greater freedom offered. Several comments, however, suggest that teachers' aides were able to establish better rapport with students than many teachers.

c. Eckville students consider personality and the ability to understand and get along with young people as the major requirement of a teachers' aide. Other characteristics, however essential, appear secondary.

III. Emerging from Teachers' Aide Interviews

a. Both Eckville teachers' aides perceived their role as performing non-professional tasks in order to free teachers for professional duties.

b. They enjoyed their contact with students but felt inadequate in policing student behavior.

c. Although they encountered many difficulties and frustrations, Eckville teachers' aides experienced a high degree of job satisfaction.

IV. Emerging from an Interview with the Superintendent

a. The superintendent's office appears skeptical of the effects on the County school system of employing teachers' aides at Eckville school.

b. Lack of communication between project workers and officially designated policy makers is apparent.

V. Emerging From Interviews with Community Members

a. Eckville community members would appreciate more information on school programs, planned innovations, etc. Members interviewed did not evidence a lack of interest in the school. They did, however, manifest a lack of communication with the school.

b. Interviewed members of the Eckville community are generally supportive of the school and its efforts to increase the quality of education through the employment of teachers' aides.

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Section VII

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EPSB - Professional Library of the Edmonton Public School Board, Edmonton

ESSB - Library of the Edmonton Separate School Board, Edmonton

Both U/A and U/C have Interlibrary Loan Services for books or articles which are not available in their libraries. Only Faculty members and Graduate Students are eligible for this service, however.

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APPENDIX I

A Taxonomy of Teacher Activity

Functions

I. Social Relations

a. social preparations: making coffee, etc.

b. social interaction with students

c. social interaction with staff

d. social interaction with school visitors

II. Supervision and Discipline

a. supervising out-of-classroom student conduct (work stations, lunch rooms, hallways, grounds, buses, etc.)

b. administering school policy - giving directives and imperatives.

c. checking legitimacy of location - seating arrangements, loitering, truancy.

d. checking legitimacy of activity - work pace, etc.

e. checking security and safety of plant and grounds.

f. making investigations of reported misconduct, infractions of regulations, etc.

g. behavioral management

- administering punishments, reprimands, etc.

- administering rewards, commendations, reinforcements, etc.

III. Housekeeping

a. keeping the room in order

b. cleaning blackboards

c. caring for house plants, pets, etc.

d. regulating temperature, ventilation, etc.

e. arranging furniture and/or facilities

f. inspection, cleaning, repairing, maintenance, and storing of hardware (equipment)

g. classroom check for security and safety.

IV. Personnel Logistics (Movement)

a. moving to and from work stations and classrooms

b. moving to and from staff rooms

c. moving to and from administrative offices

d. moving to and from buildings

e. other movements

V. Hard and Software Logistics

a. ordering, obtaining and distribution of equipment and supplies

b. obtaining, setting up, operating, dismantling, and returning instructional equipment (projector, tape recorders, record players, TV, etc.)

c. obtaining, setting up, dismantling, and returning instructional materials

d. dispersing, collecting, and accounting for equipment and supplies on temporary loan to classrooms

VI. In-House Communication and Consultation

a. conferring with colleagues

b. conferring with administration

c. conferring with specialists (counsellor, etc.)

d. conferring with paraprofessional staff

e. conferring with groups or individual students

f. making announcements

g. listening to announcements

h. preparing memos

i. reading memos

j. preparing reports

k. planning agendas

l. attending meetings

VII. Public Relations

a. reception of visitors, answering general queries

b. conferring with parents at school

c. making outgoing telephone calls

d. taking incoming telephone calls

e. reading correspondence

f. preparing correspondence

g. preparing reports, publications, and news releases

h. representing school at civic meetings

VIII. Clerical

a. writing on blackboard

b. recording attendance, making attendance reports

c. issuing and receiving materials

d. compiling lists

e. receiving and checking shipments

f. making collections

g. accounting and bookkeeping

h. stock taking, compiling inventories

i. sorting and arranging materials

j. filing and cataloguing materials

k. pulling files and locating materials

l. compiling materials, stapling, and hole punching

m. typing

n. duplicating

o. checking work books and objective exercises

p. scoring objective tests

q. tabulating and recording marks

IX. Administrative

a. scheduling events

b. making appointments and special arrangements

c. arranging for field trips, visits, etc.

d. contacting and confirming arrangements with resource persons

e. requisitioning of supplies

f. coordinating activities of others

X. Preparation of Instructional Materials

a. preparing AV materials: posters, charts, transparencies

b. preparing special forms and work sheets

c. organization and maintenance of bulletin boards and displays

d. constructing models and demonstration materials

e. recording radio and TV programs, etc., for future presentation

XI. Instructional Planning and Preparation

a. professional study (reading)

b. assessing student needs, interests, abilities (reviewing cumulative records), etc.

c. library research

d. instructional aides and resources search

e. preview AV materials

f. designing instructional materials; planning student assignments

g. planning learning experiences

h. designing instructional procedures

i. preparing lesson plans

XII. Classroom Instruction

a. lecturing: explaining, providing information to class

b. leading class discussion

c. stimulating inquiry, questioning

d. performing demonstrations, presenting models or blackboard examples

e. reading to class

f. planning or elaborating learning activities with class

g. giving instructions and directions

h. giving and explaining assignments

i. tutoring individual students

j. assisting students to locate and use information and materials

k. helping students to solve problems or perform tasks

l. answering individual questions

m. monitoring student performance: observing and providing feedback

n. presenting films, film strips, TV broadcasts, guest speakers, etc.

XIII. Evaluation

a. planning and preparing tests

b. administering tests

c. observing and recording performance

d. marking written assignments

e. marking examinations

f. preparing progress and behavioral reports

h. computing norms, standardizing scores

i. action research: cost-effectiveness analysis of instructional materials, learning activities, etc.

XIV. Counselling

a. acting as student ombudsman

b. establishing rapport

- communicating positive regard
- communicating emphatic understanding
- communicating genuineness and openness

c. facilitating self-exploration; ie. exploration of attitudes, beliefs, feelings, values, interests, abilities, etc.

d. facilitating exploration of opportunities (recreational, health, educational, vocational, etc.)

e. facilitating decision-making (personal,interpersonal, educational, vocational, etc.)

f. interpreting results of measured performance

g. providing support and encouragement

XV. Non-Classifiable

a. waiting

b. interruptions

c. etc.

APPENDIX II

Task Analysis of Teacher Activities in Eckville School

Distribution of time among various functions and subfunctions in total minutes per teacher for two-day observation periods.

T_1 - Before teachers' aides
January 20 and 22, 1970

T_2 - After teachers' aides
May 26 and 28, 1970

Task Analysis of Teacher Activities in Eckville School

Distribution of time among various functions and subfunctions in total minutes per teacher for two-day observation periods

Functions	Teacher - 1		2		8		4		9	
	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
I. Social Relations										
a. social preparations: making coffee, etc.						3				
b. social interaction with students	7		3	3	11	2	8		6	7
c. social interaction with staff	96	108	197	254	102	71	240	157	85	78
d. social interaction with school visitors		9	5			1				
Sub total	103	117	205	257	113	77	248	157	91	85
II. Supervision and Discipline										
a. supervising out-of-classroom student conduct (work stations, lunch rooms, hallways, grounds, buses, etc.)	12	1	4	6	28	7	22	15	35	
b. administering school policy - giving directives and imperatives			3		4					
c. checking legitimacy of location - seating arrangements, loitering, truancy	3	1	4	1		2	12			
d. checking legitimacy of activity - work pace, etc.										

Teacher Code: See Table VII

	10		3		13		Total	
2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
	2						2	3
7	17	42	6	1			58	55
3	89	71	162	90	63	103	1034	932
		12					5	22
5	108	125	168	91	63	103	1099	1012
	8		4				113	29
			2				9	
					1		20	4
		4		1				5

Functions	Teacher	1		2		8		4		9	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
e. checking security and safety of plant and grounds			10		2		2				
f. making investigations of reported misconduct, infractions of regulations, etc.			35			17					
g. behavior management - administering punishments, reprimands, etc.		6	16		9	2	5	3		5	1
Sub Total		21	63	11	18	51	16	37	15	40	1
III. Housekeeping											
a. keeping the room in order		6	12	2	2	1	8	5	6	27	21
b. cleaning blackboards				3		1	8			2	3
c. caring for house plants, pets, etc.											
d. regulating temperature, ventilation, etc.							1	2			
e. arranging furniture and/or facilities for special activities					1		1		2		2
f. inspection, cleaning, repairing, maintenance, and storing of hardware (equipment)		60	29			18	16			10	
g. classroom check for security and safety			4								
Sub Total		66	45	5	3	20	34	7	8	39	26
IV. Personnel Logistics (Movement)											
a. moving to and from work stations and classrooms		13	4	5	14	3	9			9	33

10		3		13		Total	
T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
							14
						17	35
4	61	5	4	—	7	25	103
12	65	11	5	1	7	184	190
2	2	3	2	8	20	54	73
3	3			5		14	14
	1		1			2	3
2	2	9	3		2	11	13
	3	4		14	15	106	63
—	—	—	—	—	—	—	4
7	11	16	6	27	37	187	170
17	9	22	24		2	69	95

Functions	Teacher	1		2		8		4		9	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
b. moving to and from staff rooms		1	1	11	3	6		7	4	4	
c. moving to and from administrative offices		8	1	5	2	19	3			2	
d. moving to and from buildings		55								5	
e. other movement					7						
Sub Total		77	6	21	26	28	12	7	4	20	3
V. Hard and Software Logistics											
a. ordering, obtaining and distribution of equipment and supplies					1	2	11				
b. obtaining, setting up, operating, dismantling, and returning instructional equipment (projector, tape recorders, record players, TV, etc.)					4	1	3			44	
c. obtaining, setting up, dismantling, and returning instructional materials			5	15		4	1	3	3	1	2
d. dispersing, collecting, and accounting for equipment and supplies on temporary loan to classrooms						22					
Sub Total			5	15	5	29	15	3	3	45	3
VI. In-House Communication and Consultation											
a. conferring with colleagues		49	49	21	8	85	60	47	91		
b. conferring with administration		41	83	10	7	15	15	14	2	6	
c. conferring with specialists (counsellor, etc.)		79	30	26	21		3				
d. conferring with paraprofessional staff		36	11		10	12	4				

10		3		13		Total	
T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
32	6	12	17	1	2	74	34
6	1	2	4	10	2	52	13
						60	
20						20	12
75	16	36	45	11	6	275	154
			2			2	16
3		1	10			49	25
	8		6			23	51
						22	
3	8	1	18			96	92
18	44	32	76	5	17	257	352
10	2	10				106	109
	12	26	6	23		154	72
4	5	3	5		1	55	40

Functions	Teacher	1		2		8		4		9	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
e. conferring with groups or individual students			9		11		14				3
f. making announcements			6		1		3				3
g. listening to announcements											2
h. preparing memos		14									
i. reading memos				14							
j. preparing reports		40	13			50					
k. planning agendas		5									
l. attending meetings											
Sub Total		264	201	71	58	162	99	61	93	6	19
VII. Public Relations											
a. reception of visitors, answering general queries			5				11				
b. conferring with parents at school		11	1				2				
c. making outgoing telephone calls		24	14			2					
d. taking incoming telephone calls		14			12		9				
e. reading correspondence		17	26	9							
f. preparing correspondence		16	11				1				
g. preparing reports, publications, and news releases		15	1		91	1					
h. representing school at civic meetings		187	180		40	105					
Sub Total		284	238	9	143	108	23				
VIII. Clerical											
a. writing on blackboard		2		4		2	4	7		7	

10		3		13		Total	
T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
	22	2	3		2	2	64
2	6					2	19
	3		4				9
						14	
	11					14	11
	2				1	90	16
						5	
6						6	
40	107	73	94	28	21	705	692
6						6	16
						11	3
1			42			27	56
		5				19	21
10	1	3				39	27
	1				16	16	29
						16	92
						292	220
17	2	8	42		16	426	464
8	4		5	41	28	71	44

Functions	Teacher	1		2		8		4		9	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
b. recording attendance, making attendance reports		1		10	13	1	3	21	14	3	5
c. issuing and receiving materials		1	2	13	2	9	8	7	9	18	11
d. compiling lists		1		2							
e. receiving and checking shipments		4				4	38				
f. making collections							2				4
g. accounting and bookkeeping											
h. stock taking, compiling inventories						2				1	
i. sorting and arranging materials				10		58	2			2	
j. filing and cataloguing materials		3				9	3			5	
k. pulling files and locating materials		1		5		18	3			4	
l. compiling materials, stapling, and hole punching							1			34	1
m. typing											
n. duplicating		2				10				18	2
o. checking work books and objective exercises			5			8			22	26	
p. scoring objective tests											
q. tabulating and recording marks		4		11				16			
Sub Total		19	7	55	15	121	64	51	45	118	7
IX. Administrative											
a. scheduling events			22			16	7				
b. making appointments and special arrangements											

10		3		13		Total	
T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
13	7	12		2		63	42
21	41	16		17	10	102	83
2						5	
						8	38
	3			7	2	7	11
	5						5
		2				5	
2	4			2	2	74	15
1	1			5		23	4
	1	11				39	4
13		16		11		74	20
27						27	
22		23		7		82	20
3	2				133	37	162
	21				39		60
	9			42	6	73	16
112	98	80	5	134	220	690	524
	18				2	16	49
							3

Functions	Teacher	1		2		8		4		9	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T
c. arranging for field trips, visits, etc.											
d. contacting and confirming arrangements with resource people					2						
e. requisitioning of supplies			11								
f. coordinating activities of others			5				2				
Sub Total			38		2	16	9				
X. Preparation of Instructional Materials											
a. preparing A-V materials: posters, charts, transparencies											
b. preparing special forms and work sheets											
c. organization and maintenance of bulletin boards and displays			2				5				
d. constructing models and demonstration materials							15		30		
e. recording radio and TV programs, etc., for future presentation								12			
Sub Total			2				20	12	30		
XI. Instructional Planning and Preparation											
a. professional study (reading)		11		15		12					
b. assessing student needs, interests, abilities (reviewing cumulative records), etc.											
c. library research											

	10		3		13		Total	
	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
								2
								11
—	13	—	—	—	—	—	13	7
3	13	18				2	29	72
				16				16
					5		5	
								7
					5		5	45
—	—	—	—	—	—	—	12	—
				16	10		22	68
		39		3	13	7	51	49
					7		7	

Functions	Teacher	1		2		8		4		
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T
d. instructional aides and resources search				10						
e. preview A-V materials		20		30				15		2
f. designing instructional materials; planning student assignments		10								
g. planning learning experiences		3		5		22	5			
h. designing instructional procedures		10						5		
i. preparing lesson plans		6			58	22	2	44	22	
Sub Total		60		60	58	56	7	64	77	3
XII. Classroom Instruction										
a. lecturing: explaining, providing information to class		8	3	25	65	38	12	119	110	
b. leading class discussion		37	11		7	31	25	2		2
c. stimulating inquiry		40	5	60	4	61	61	59	20	5
d. performing demonstrations, presenting models, or blackboard examples		13			17	6	68	63	31	1
e. reading to class		1		2			41		5	
f. planning or elaborating learning activities with class				5						
g. giving instructions and directions		8	9	35	5	7	102	5	26	
h. giving and explaining assignments		11	1	24		7	13	17	44	2
i. tutoring individual students		1	57	21		59	4	19		2
j. assisting students to locate and use information and materials		6	4			2		11		

	10		3		13		Total	
T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
					15		25	
			11		15		112	
							10	
40	5					1	35	46
						1	17	1
	55				6	8	141	90
40	60	49	11	3	56	17	398	251
88	19	13	5	2			219	293
28	14	34	11	72	37	12	152	189
17	47	46	42	35	26	55	386	243
26		7	6	10		41	102	200
	19	32	30	11	12		64	89
6		5	2	8	2		12	19
13	157	41	23	42	51	60	291	298
14	22	2	11	7	34	2	153	83
13	33	13		17	4	15	157	119
10		3	10	23	24		54	40

Functions	Teacher	1		2		8		4		9	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
k. helping students to solve problems or perform tasks		6	14	18	4	15	24	50	49	138	91
l. answering individual questions		20		2	2	7	30	10		26	27
m. monitoring student performance: observing and providing feedback		20	42	151	69	75	122	64	125	105	66
n. presenting films, film strips, TV broadcasts, guest speakers, etc.										56	9
Sub Total		171	146	343	173	308	502	419	410	471	49
III. Evaluation											
a. planning and preparing tests										7	
b. administering tests				18		4					
c. observing and recording performance											
d. marking written assignments				42		23		49			
e. marking examinations		9					38		30		
f. preparing anecdotal records											
g. preparing progress and behavioral reports											
h. computing norms, standardizing scores											
i. action research: cost-effectiveness analysis of instructional materials, learning activities, etc.											
Sub Total		9		60		27	38	49	30	7	

10		3		13		Total	
T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
21	25	33	38	23	14	304	259
5	50	13	4	9	2	92	115
77	22	207	143	157	147	856	736
		44	33			100	131
414	293	437	445	379	348	2942	2814
				13		20	
113	20					135	20
30	26	15	62	59	18	218	106
	24		33	81	57	90	182
			5				5
143	70	15	100	153	75	463	313

Functions	Teacher	1		2		8		4		9	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2	T_1	
XIV. Counselling											
a. acting as student ombudsman											
b. establishing rapport - communicating positive regard - communicating emphatic understanding - communicating genuineness and openness											
c. facilitating self-exploration; ie. exploration of attitudes, beliefs, feelings, values, interests, abilities, etc.					10						
d. facilitating exploration of opportunities (recreational, health, educational, vocational, etc.)											
e. facilitating decision-making (personal, interpersonal, educational, vocational, etc.)						10					
f. interpreting results of measured performance											
g. providing support and encouragement					32						
Sub Total					42	10					
XV. Non-Classifiable											
a. waiting				5	11		4	19	17	2	
b. interruptions		2		2			5	13			
c. etc.											
Sub Total		2		7	11		9	32	17	2	
GRAND TOTAL		1076	868	862	811	1049	925	990	889	870	

		10		3		13		Total	
		T_1	T_2	T_1	T_2	T_1	T_2	T_1	T_2
									10
								10	
									32
								10	42
11		6	3		7			43	58
	4	1	7	12	3			30	22
11	4	7	10	12	10			73	80
1015	866	863	880	874	862				

APPENDIX III

A Detailed Analysis of Teaching Practice

in Eckville School

Elaboration of Table X

Note 1: Column 1 gives total time in minutes spent in activities by eight teachers for two days.

Note 2: Column 2 expresses the time spent in subfunctions as a percentage of total time spent in functions

Note 3: Column 3 expresses time spent in both functions and subfunctions as a percentage of total time spent in the school.

A Detailed Analysis of Teaching Practive
in Eckville School

Elaboration of Table X

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
I. Social Relations						
a. social preparations: making coffee, etc.	2	0.2	0.03	3	0.3	0.04
b. social interaction with students	58	5.3	0.76	55	5.4	0.79
c. social interaction with staff	1034	94.1	13.61	932	92.1	13.43
d. social interaction with school visitors	5	0.5	0.06	22	2.2	0.31
	1099	100%	14.46	1012	100%	14.57
II. Supervision and Discipline						
a. supervising out-of-classroom student conduct (work stations, lunch rooms, hallways, grounds, buses, etc.)	113	61.4	1.48	29	15.3	0.42
b. administering school policy - giving directives and imperatives	9	4.9	0.11			
c. checking legitimacy of location - seating arrangements, loitering, truancy	20	10.9	0.26	4	2.1	0.05

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
d. checking legitimacy of activity - work pace, etc.				5	2.6	0.07
e. checking security and safety of plant and grounds				14	7.4	0.20
f. making investigations of reported misconduct, infractions of regulations, etc.	17	9.2	0.22	35	18.4	0.50
g. behavioral management						
- administering punishments, reprimands, etc.	25	13.6	0.33	103	54.2	1.48
- administering rewards, commendations, reinforcements, etc.						
	184	100	2.40	190	100	2.72
III. Housekeeping						
a. keeping the room in order	54	28.9	0.71	73	42.9	1.05
b. cleaning blackboards	14	7.5	0.18	14	8.2	0.20
c. caring for house plants, pets, etc.						
d. regulating temperature, ventilation, etc.	2	1.1	0.03	3	1.8	0.04
e. arranging furniture and/or facilities for special activities	11	5.9	0.14	13	7.6	0.18
f. inspection, cleaning, repairing, maintenance, and storing of hardware (equipment)	106	56.7	1.39	63	37.1	0.91

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
g. classroom check for security and safety				4	2.4	0.05
	187	100	2.45	170	100	2.43
IV. Personnel Logistics (Movement)						
a. moving to and from work stations and classrooms	69	25.1	0.91	95	61.7	1.37
b. moving to and from staff rooms	74	26.9	0.97	34	22.1	0.49
c. moving to and from administrative offices	52	18.9	0.68	13	8.4	0.18
d. moving to and from buildings	60	21.8	0.79			
e. other movement	20	7.3	0.26	12	7.8	0.17
	275	100	3.61	154	100	2.21
V. Hard and Software Logistics						
a. ordering, obtaining, and distribution of equipment and supplies	2	2.1	0.03	16	17.4	0.23
b. obtaining, setting up, operating, dismantling, and returning instructional equipment (projector, tape recorders, record players, TV, etc.)	49	51.0	0.64	25	27.2	0.36
c. obtaining, setting up, dismantling, and returning instructional materials	23	24.0	0.30	51	55.4	0.73

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
d. dispersing, collecting, and accounting for equipment and supplies on temporary loan to classrooms	22	22.9	0.29			
	96	100	1.26	92	100	1.32
VI. In-House Communication and Consultation						
a. conferring with colleagues	257	36.5	3.38	352	50.9	5.07
b. conferring with administration	106	15.0	1.39	109	15.8	1.57
c. conferring with specialists (counsellor, etc.)	154	21.8	2.02	72	10.4	1.03
d. conferring with paraprofessional staff	55	7.8	0.72	40	5.8	0.57
e. conferring with groups or individual students	2	0.3	0.03	64	9.3	0.92
f. making announcements	2	0.3	0.03	19	2.7	0.27
g. listening to announcements				9	1.3	0.13
h. preparing memos	14	2.0	0.18			
i. reading memos	14	2.0	0.18	11	1.6	0.16
j. preparing reports	90	12.8	1.18	16	2.3	0.23
k. planning agendas	5	0.7	0.06			
l. attending meetings	6	0.9	0.08			
	705	100	9.25	692	100	9.95

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
VII. Public Relations						
a. reception of visitors, answering general queries	6	1.4	0.08	16	3.5	0.23
b. conferring with parents at school	11	2.6	0.14	3	0.6	0.04
c. making outgoing telephone calls	27	6.3	0.36	56	12.1	0.81
d. taking incoming telephone calls	19	4.5	0.25	21	4.5	0.30
e. reading correspondence	39	9.2	0.51	27	5.8	0.39
f. preparing correspondence	16	3.8	0.21	29	6.3	0.41
g. preparing reports, publications, and news releases	16	3.8	0.21	92	19.8	1.32
h. representing school at civic meetings	292	68.5	3.84	220	47.4	3.17
	426	100	5.59	464	100	6.67
VIII. Clerical						
a. writing on blackboard	71	10.3	0.93	44	8.4	0.63
b. recording attendance, making attendance reports	63	9.1	0.82	42	8.0	0.60
c. issuing and receiving materials	102	14.8	1.34	83	15.9	1.19
d. compiling lists	5	0.7	0.06			
e. receiving and checking shipments	8	1.2	0.10	38	7.3	0.54
f. making collections	7	1.0	0.09	11	2.1	0.16
g. accounting and bookkeeping				5	1.0	0.07

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
h. stock taking, compiling inventories	5	0.7	0.06			
i. sorting and arranging materials	74	10.7	0.97	15	2.9	0.21
j. filing and cataloguing materials	23	3.3	0.30	4	0.8	0.05
k. pulling files and locating materials	39	5.7	0.51	4	0.8	0.05
l. compiling materials, stapling and hole punching	74	10.7	0.97	20	3.8	0.29
m. typing	27	3.9	0.35			
n. duplicating	82	11.9	1.08	20	3.8	0.29
o. checking work books and objective exercises	37	5.4	0.48	162	30.9	2.33
p. scoring objective tests				60	11.5	0.86
q. tabulating and recording marks	73	10.6	0.96	16	3.1	0.23
	690	100	9.02	524	100	7.50
IX. Administrative						
a. scheduling events	16	55.6	0.21	49	68.1	0.70
b. making appointments and special arrangements				3	4.2	0.04
c. arranging for field trips, visits, etc.				2	2.8	0.03
d. contacting and confirming arrangements with resource persons				11	15.3	0.16
e. requisitioning of supplies						

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
f. coordinating activities of others	13	44.4	0.17	7	9.7	0.10
	29	100	0.38	72	100	1.03
X. Preparation of Instructional Materials						
a. preparing A-V materials: posters, charts, transparencies				16	23.5	0.23
b. preparing special forms and work sheets	5	22.7	0.06			
c. organization and maintenance of bulletin boards and displays				7	10.3	0.10
d. constructing models and demonstration materials	5	22.7	0.06	45	66.2	0.65
e. recording radio and TV programs, etc., for future presentation	12	54.6	0.15			
	22	100	0.27	68	100	0.98
XI. Instructional Planning and Preparation						
a. professional study (reading)	51	13.1	0.67	49	19.5	0.70
b. assessing student needs, interests, abilities (reviewing cumulative records), etc.						
c. library research	7	1.8	0.09			
d. instructional aides and resources search	25	6.7	0.33			

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
e. preview A-V materials	112	28.9	1.47			
f. designing instructional materials, planning student assignments	10	2.6	0.13	65	25.9	0.93
g. planning learning experiences	35	9.0	0.46	46	18.3	0.66
h. designing instructional procedures	7	1.8	0.09	1	0.4	0.01
i. preparing lesson plans	141	36.3	1.85	90	35.9	1.29
	388	100	5.09	251	100	3.59
XII. Classroom Instruction						
a. lecturing: explaining, providing information to class	219	7.4	2.88	293	10.4	4.22
b. leading class discussion	152	5.2	2.00	189	6.7	2.72
c. stimulating inquiry, questioning	386	13.1	5.08	243	8.6	3.50
d. performing demonstrations, presenting models, or blackboard examples	102	3.5	1.34	200	7.1	2.88
e. reading to class	64	2.2	0.84	89	3.2	1.28
f. planning or elaborating learning activities with class	12	0.4	0.16	19	0.7	0.27
g. giving instructions and directions	291	9.9	3.83	298	10.6	4.29
h. giving and explaining assignments	153	5.2	2.01	83	3.0	1.19
i. tutoring individual students	157	5.3	2.06	119	4.2	1.71
j. assisting students to locate and use information and materials	54	1.8	0.71	40	1.4	0.57

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
k. helping students to solve problems or perform tasks	304	10.3	4.00	259	9.2	3.73
l. answering individual questions	92	3.1	1.21	115	4.1	1.65
m. monitoring student performance: observing and providing feedback	856	29.1	11.26	736	26.2	10.60
n. presenting films, film strips, TV broadcasts, guest speakers, etc.	100	3.4	1.31	131	4.7	1.89
	2942	100	38.69	2814	100	40.50
XIII. Evaluation						
a. planning and preparing tests	20	4.3	0.26			
b. administering tests	135	29.2	1.77	20	6.4	0.29
c. observing and recording performance						
d. marking written assignments	218	47.1	2.87	106	33.9	1.53
e. marking examinations	90	19.4	1.18	182	58.1	2.62
f. preparing anecdotal records						
g. preparing progress and behavioral reports				5	1.6	0.07
h. computing norms, standardizing scores						
i. action research: cost-effectiveness analysis of instructional materials, learning activities, etc.						
	463	100	6.08	312	100	4.51

Functions	Before Teachers' Aides			After Teachers' Aides		
	Minutes	%	%	Minutes	%	%
XIV. Counselling						
a. acting as student ombudsman						
b. establishing rapport - communicating positive regard - communicating emphatic understanding - communicating genuineness and openness						
c. facilitating self-exploration; ie. exploration of attitudes, beliefs, feelings, values, interests, abilities, etc.				10	23.8	0.14
d. facilitating exploration of opportunities (recreational, health, educational, vocational, etc.)	10	100	0.13			
f. interpreting results of measured performance						
g. providing support and encouragement				32	76.2	0.46
	10	100	0.13	42	100	0.60
XV. Non-Classifiable						
a. waiting	43	58.9	0.56	58	72.5	0.83
b. interruptions	30	41.1	0.39	22	27.5	0.32
c. etc.						
	73	100	0.95	80	100	1.15

APPENDIX IV

A Detailed Distribution of the Work of Teachers' Aides for Each Teacher

Column 1 lists various Teachers' Aide functions.

Columns 2 to 5 give the number of minutes devoted to each task for the designated month.

Column 6 gives the total number of minutes devoted to specified tasks over a four-month period.

Column 7 expresses the total time spent in a given task as a percentage of the total time spent in all tasks for the teacher in question.

Teacher ONE (Principal)

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating			30		30	0.2
2. Classroom supervision	1,720	2,800	2,640	1,350	8,510	51.2
3. Lunch hour supervision	1,440	2,160	2,100	2,290	7,990	48.1
4. Library assistance						
5. Cleanup				60	60	0.4
6. Preparation of AV & dem. mat						
7. Clerical				20	20	0.1
8. Research						
9. Marking						
TOTAL	3,160	4,960	4,770	3,720	16,610	100%

Teacher TWO

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	920	137	445	292	1,794	40.0
2. Classroom supervision	160	160	360	600	1,280	28.6
3. Lunch hour supervision						
4. Library assistance	4				4	0.1
5. Cleanup			165		165	3.7
6. Preparation of AV & dem. mat.	5	420			425	9.5
7. Clerical	50	30		105	185	4.1
8. Research	465		60		525	11.7
9. Marking		45		60	105	2.3
TOTAL	1,604	792	1,030	1,057	4,483	100%

Teacher THREE

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	210	545	905	425	2,085	61.2
2. Classroom supervision	40	-	120	320	480	14.1
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.	35	80	10	15	140	4.1
7. Clerical						
8. Research		120	210		330	9.7
9. Marking	155	155	60		370	10.9
TOTAL	440	900	1,305	760	3,405	100%

Teacher FOUR

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	545	525	425	147	1,642	50.8
2. Classroom supervision	40	120	140	40	340	10.5
3. Lunch hour supervision						
4. Library assistance	5				5	0.2
5. Cleanup	250	110	14	85	585	18.0
6. Preparation of AV & dem. mat.	100	36	110	105	351	10.9
7. Clerical	145		105		250	7.7
8. Research						
9. Marking		60			60	1.9
TOTAL	1,085	851	920	377	3,233	100%

Teacher FIVE

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating				330	330	14.0
2. Classroom supervision						
3. Lunch hour supervision						
4. Library assistance	100	700	845	180	1,825	77.7
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical				195	195	8.3
8. Research						
9. Marking						
TOTAL	100	700	845	705	2,350	100%

Teacher SIX

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	130	345	850	946	2,271	98.1
2. Classroom superivison						
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.	5	10			15	0.6
7. Clerical			30		30	1.3
8. Research						
9. Marking						
TOTAL	135	355	880	946	2,316	100%

Teacher SEVEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	-	240	225	455	920	43.4
2. Classroom supervision	80	320	360	440	1,200	56.6
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical						
8. Research						
9. Marking						
TOTAL	80	560	585	895	2,120	100%

Teacher EIGHT

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	160	230	250	355	1,095	52.0
2. Classroom supervision	40				40	1.9
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup	125	170	260	345	900	42.8
6. Preparation of AV & dem. mat.	15				15	0.7
7. Clerical	55				55	2.6
8. Research						
9. Marking						
TOTAL	395	500	510	700	2,105	100%

Teacher NINE

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	290	70	170	230	760	48.7
2. Classroom supervision		240	220	320	780	50.0
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical		20			20	1.3
8. Research						
9. Marking						
TOTAL	290	330	390	550	1,560	100%

Teacher TEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	350	233		571	1,154	88.2
2. Classroom supervision				120	120	9.2
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.	15				15	1.1
7. Clerical	5			15	20	1.5
8. Research						
9. Marking						
TOTAL	370	233		706	1,309	100%

Teacher ELEVEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	345	15	55	85	500	49.3
2. Classroom supervision	40			100	140	13.8
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup				45	45	4.4
6. Preparation of AV & dem. mat.		210			210	20.7
7. Clerical		120			120	11.8
8. Research						
9. Marking						
TOTAL	385	345	55	230	1,015	100%

Teacher TWELVE

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	35	195	475	265	970	100
2. Classroom supervision						
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical						
8. Research						
9. Marking						
TOTAL	35	195	475	265	970	100

Teacher THIRTEEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	5			350	355	40.6
2. Classroom supervision	80	120	120	200	520	59.4
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical						
8. Research						
9. Marking						
TOTAL	85	120	120	550	875	100%

Teacher FOURTEEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	225	510	90	-	825	100
2. Classroom supervision						
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical						
8. Research						
9. Marking						
TOTAL	225	510	90	-	825	100%

Teacher FIFTEEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	15	20	150	25	210	28.4
2. Classroom supervision	80	120	120	200	520	70.3
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.		10			10	1.4
7. Clerical						
8. Research						
9. Marking						
TOTAL	95	150	270	225	740	100%

Teacher SIXTEEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	-	11	170	452	633	100
2. Classroom supervision						
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical						
8. Research						
9. Marking						
TOTAL	-	11	170	452	633	100%

Teacher SEVENTEEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating						
2. Classroom supervision	80	120	80	120	400	100
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.						
7. Clerical						
8. Research						
9. Marking						
TOTAL	80	120	80	120	400	100

Teacher EIGHTEEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating		58		95	153	68.6
2. Classroom supervision						
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.		10			10	4.5
7. Clerical						
8. Research						
9. Marking	60				60	26.9
TOTAL	128		95		223	100%

Teacher NINETEEN

Function	Feb.	March	April	May	Total	%
1. Typing and duplicating	120	10			130	68.4
2. Classroom supervision						
3. Lunch hour supervision						
4. Library assistance						
5. Cleanup						
6. Preparation of AV & dem. mat.	60				60	31.6
7. Clerical						
8. Research						
9. Marking						
TOTAL	180	10			190	100%